

OFFICE USE ONLY

SUP # \_\_\_\_\_

Date: \_\_\_\_\_

**TOWN OF BLACKSBURG, VIRGINIA  
SPECIAL USE PERMIT APPLICATION**

This application and accompanying information must be submitted in full before the special use permit can be referred to the Planning Commission and Town Council for consideration. The application and accompanying information will become conditions of approval and be binding on the property if the permit is granted. Please contact the Planning and Engineering Department at (540) 961-1114 for application deadline or questions.

Name of Property Owner(s): Kroger Limited Partnership I

Address: P.O. Box 14002, Roanoke, VA 24038 Phone: 540-561-3317

Contract Purchaser or Agent: Michael Gay, Gay and Neel, Inc.

Address: 328 Mountain Ave. SW, Roanoke, VA 24016 Phone: 540-345-1110

Location or Address of Property for Special Use Permit:

1344 South Main Street, Blacksburg, VA 24060

Tax Parcel Number(s): 287-(A)-38A

Present Zoning District: General Commercial

Present Use of Property: Retail Sales, Large Format

Special Use Requested: Retail Sales, Large Format

Section: \_\_\_\_\_

Is this request for an amendment to an existing special use permit? No

Please provide the following information—attach separate pages if necessary:

Description of proposed use (or site modification)

Expansion of existing grocery store – see supporting documentation

Please demonstrate how the proposed use, when complemented with additional measures, if any, will be in harmony with the purposes of the specific district in which it will be placed.

Please see supporting documentation. In general, this is an expansion of an existing use.

Additional measures include demolition of empty structures, addition of greenspace, parking,

sidewalks, and street trees.

Please demonstrate how there will be no undue adverse impacts on the surrounding neighborhood in terms of public health, safety, or general welfare, and show the measure to be taken to achieve such goals.

Supporting data indicates a minimal increase in vehicular and pedestrian traffic. To mitigate this impact vehicle entrances are being upgraded and sidewalks are being added.

---

---

---

The following items must accompany this application:

1. The written consent of the owner or agent for the owner. If the applicant is the contract purchaser, the written consent of the owner is required.
2. One copy of a site plan for the property showing the lot, structures, site improvements, parking areas and spaces, and any other information necessary to determine the ability to meet the Zoning Ordinance site development standards, use and design standards, and physical compatibility with the neighborhood.
3. Vicinity map (may be included on the site plan).
4. A list of adjacent property owners (including properties across the street) and their addresses, plus the cost of CERTIFIED FIRST CLASS postage for notifying each adjacent property owner (no stamps, please).
5. Fee of \$500 for special use permits or minor amendments to existing special use permits to be applied to the cost of advertising and expense incidental to reviewing, publishing, and processing this application. Please make your check or money order payable to the TOWN OF BLACKSBURG.
6. **Any item submitted that is greater than 11" x 17" paper size requires thirty-six (36) copies.**

SIGNATURE OF APPLICANT:



DATE: June 1, 2007

Application Narrative  
Gables Shopping Center  
Special Use Permit Request  
July 30, 2007 – Revision

It is proposed to expand the existing Kroger Grocery Store located in the Gables Shopping Center on South Main Street. This expansion will be accompanied by several site improvements. The project encompasses demolition of two existing free standing structure and demolition of part of the main retail structure on the site. The main structure will then be expanded to accommodate the new grocery store addition. Along with this expansion the front façade of the entire main structure will be renovated. Site improvements include additional parking, increased green area interior to the parking lot, a new sidewalk and street trees along Country Club Drive, additional sidewalks to accommodate transit riders, stormwater management improvements, and elimination of one of the existing vehicular entrances on Country Club Drive.

This request for a Special Use Permit is required to bring the site into compliance with the recently revised Zoning Ordinance which added a new use, Retail Sales, Large Format. The following narrative will provide information and data to demonstrate that the proposed expansion and renovation will be in harmony with the purposes of the General Commercial District and will also demonstrate that the proposed project will meet the intent of the Use and Design Standards of Section 4560 Retail Sales, Large Format of the current Town Zoning Ordinance.

Provided as part of the application for this Special Use Permit are a traffic study, elevations of the proposed expansion, a Proposed Site Layout, and a copy of the detailed Site Development Plan. It must be noted that the detailed Site Development Plan has been submitted and reviewed by Town Staff. This submittal was done prior to the adoption of the new Retail Sales, Large Format ordinance. The plans provided in this application incorporate revisions requested by Town Staff as a result of their first review. The plans do not include additional improvements resulting from the SUP process.

Below are the specific Use and Design Standards outlined in the Ordinance and demonstrations as to how the proposed project will achieve these Use and Design Standards.

- 1. Applications must clearly demonstrate that the use will be compatible with the neighborhood, particularly with regard to traffic circulation, parking, buffering, and appearance.* The proposed project lies within the limits of the existing Gables Shopping Center. This Shopping Center was developed in the 1960's and was most recently renovated in the mid 1990's. The shopping center is almost entirely surrounded by the General Commercial District with some associated Retail Commercial uses. There is a tract of land to the west that is zoned General Commercial and is currently undeveloped and used as a recreation field commonly referred to as the "rugby field". To the north is existing Commercial Zoning with current retail use, to the east, across South Main Street is a retail Shopping Center, and a single residence on the corner of Main Street and Country Club Drive. To the south is land zoned General Commercial and currently used as a mix of retail and office.

It can be stated that the “neighborhood” in which this project lies is commercial in nature and the proposed expanded use is in keeping with existing zoning and uses. The proposed expansion, in conjunction with the demolition of some of the current structures will have a minimal impact on current vehicular traffic.

Included in this SUP application is a traffic analysis of the current and projected traffic along Country Club Drive. All proposed additional parking will be provided on site and will not increase the total impervious area of the site. In fact, the opportunity exists, and has been realized, to provide additional interior parking lot green space.

In the areas of the expansion, street frontage along Country Club Drive will be provided with a buffer where none currently exists. Currently, asphalt and parking are extended to the street. The proposed project will provide a green strip, street trees, and a sidewalk to make this road frontage softer and more pedestrian oriented. The rear of the building, in the vicinity of the expansion, will maintain a green area and trees will be provided. The remaining street frontage will have additional street trees to supplement the existing trees and as previously stated, additional parking lot trees will be planted that will further buffer the parking lot and building from the streets.

Proposed Architecture of the expansion will be in keeping with the existing design of the main building in the Gables Shopping center. The structure will be brick faced with architectural detail on all sides. Elevation views of the proposed addition are included with this application.

*2. The use of alternative pavement, such as brick pavers or porous pavement, pervious overflow parking areas, and/or other low impact development techniques for stormwater management are encouraged, and may be conditions of approval.* Considering the current urban condition of the site, many opportunities to incorporate low impact development techniques have been lost. As previously stated, the opportunity has been taken advantage of to add additional green space and trees to the existing parking lot. Although minor, stormwater runoff from this site will actually decrease because of the added green areas and trees.

There will be an opportunity to incorporate some additional stormwater management. It is proposed roof water from the expansion be discharged into a new “Roof Downspout System” in general conformance with Minimum Standard 3.10C of the Virginia Stormwater Management Handbook, latest edition. The infiltration area will be placed in the green space located in the northwest corner of the site.

*3. The street elevation of each large format retail sales structure shall have at least one major street-oriented primary entrance, and contain the principal windows of the store.* The front of the structure, which faces South Main Street currently, has the main entrance and principal windows of the Store(s). This architectural scheme will be maintained. The site along Country Club Drive will be improved to provide a more pedestrian friendly avenue. Sidewalks and green areas will be added for safety and to provide direct access to the front of the building.

*4. The hours of operation may be restricted through the special use permit.* The existing Kroger Grocery Store operates 24 hours per day, seven days a week. This will be maintained after the

expansion. Considering the existing surrounding uses, traffic, and lighting, in conjunction with the low level of night time activity at the grocery store, it is not anticipated that the continuance of the 24 hour operation will have a negative impact on the surrounding areas.

*5. Exterior lighting shall be compatible with the surrounding neighborhood.* Current lighting levels will be maintained. Some existing lighting will be relocated to accommodate relocated parking spaces. These relocations will be minor and will not have any off-site impact. The rear of the proposed expansion will have minor security lighting. There will be limited evening activity in the rear of the building, thus lighting levels will be kept to a minimum. Any new proposed lighting will be in accordance with the current zoning ordinance.

*6. Entrances to the site should be minimized and placed in such a way as to maximize safety, maximize efficient traffic circulation, and minimize the impact of any adjacent neighborhood.* The proposed site improvements include eliminating a current entrance off of Country Club Drive and improving the main shopping center entrance on Main Street.

There are three existing entrances along Country Club Drive. The major entrance, nearest to Main Street will be maintained. This entrance will be improved to provide easier maneuverability for vehicles entering the site. This entrance currently has a left turn lane on Country Club Drive. This will be maintained. A traffic study has been conducted and no right hand turn lane into this entrance is warranted.

The two existing entrances to the rear of this site, off of Country Club Drive will be combined into a single re-aligned entrance. This entrance will be placed to accommodate the entering of delivery trucks. Large trucks will then flow through the site and exit directly onto Main Street, as they currently do. The re-aligned entrance on Country Club Drive will also be designed to accommodate the exiting of cars from a pharmacy drive through and a small parking area near the entrance. The proposed design of the site will reduce the number of cars using this newly designed rear entrance. Also, this new entrance/exit will not allow left turns onto Country Club Drive.

Some minor adjustments to interior vehicular circulation at the signaled Main Street entrance will be made. Currently, vehicles sometimes are “backed-up” onto Main Street because of a tight travelway. The travelway is being widened to allow a wider entrance and larger turning area.

*7. The scale, massing and building design shall be compatible with surrounding developments. The structure and site shall be street-oriented with pedestrian entrances from the street.* The proposed expansion will increase the current structure from 110,448 square feet to 132,278 square feet, or an increase of 19.7 percent. The existing roof line of the structure will be extended through the expansion. The General Commercial zoning district has a maximum building height of 60-feet, or 70-feet with additional one foot front, side, and rear setback per foot of additional height and a minimum building setback of 10 feet from the street right-of-way. The proposed expansion height will not exceed 35-feet and the drive through canopy will have an approximate 40-feet setback. Not only are these within the requirements for the zoning district, but they also meet, or exceed the more restrictive conditions established as proffers on

the adjacent property to the west of the site. These proffers were a 25-feet setback and a maximum building height of 50-feet.

The building expansion will utilize and build-off of existing architectural details found in the current building. Front, side and rear walls will be brick and textured concrete faced and will include details to compliment the current architectural style of the building and to eliminate blank and monotonous appearances. Elevations of all three new facades are included in this application.

*8. The location, dimensions, and design concept of any proposed signage shall be provided at the time of the special use permit application.* In the past, two non-conforming, pole mounted signs along South Main Street have been used to indicate which businesses are located in the Gable Shopping Center. One of these sign has already been removed and the other will be removed as part of this project. In place of these two signs, one monument sign will be placed at the main entrance to the shopping center. The proposed location is indicated on the Proposed Conditions Exhibit contained in this application. The proposed monument sign will meet all current sign ordinance requirements and will indicate the name of the shopping center and the presence of the Kroger Grocery Store. Other signage will be wall mounted to indicate presence and location of each business located in the shopping center and will meet all current sign ordinance criteria. The current wall mounted Kroger sign will be replaced with a sign designed to meet current sign requirements.

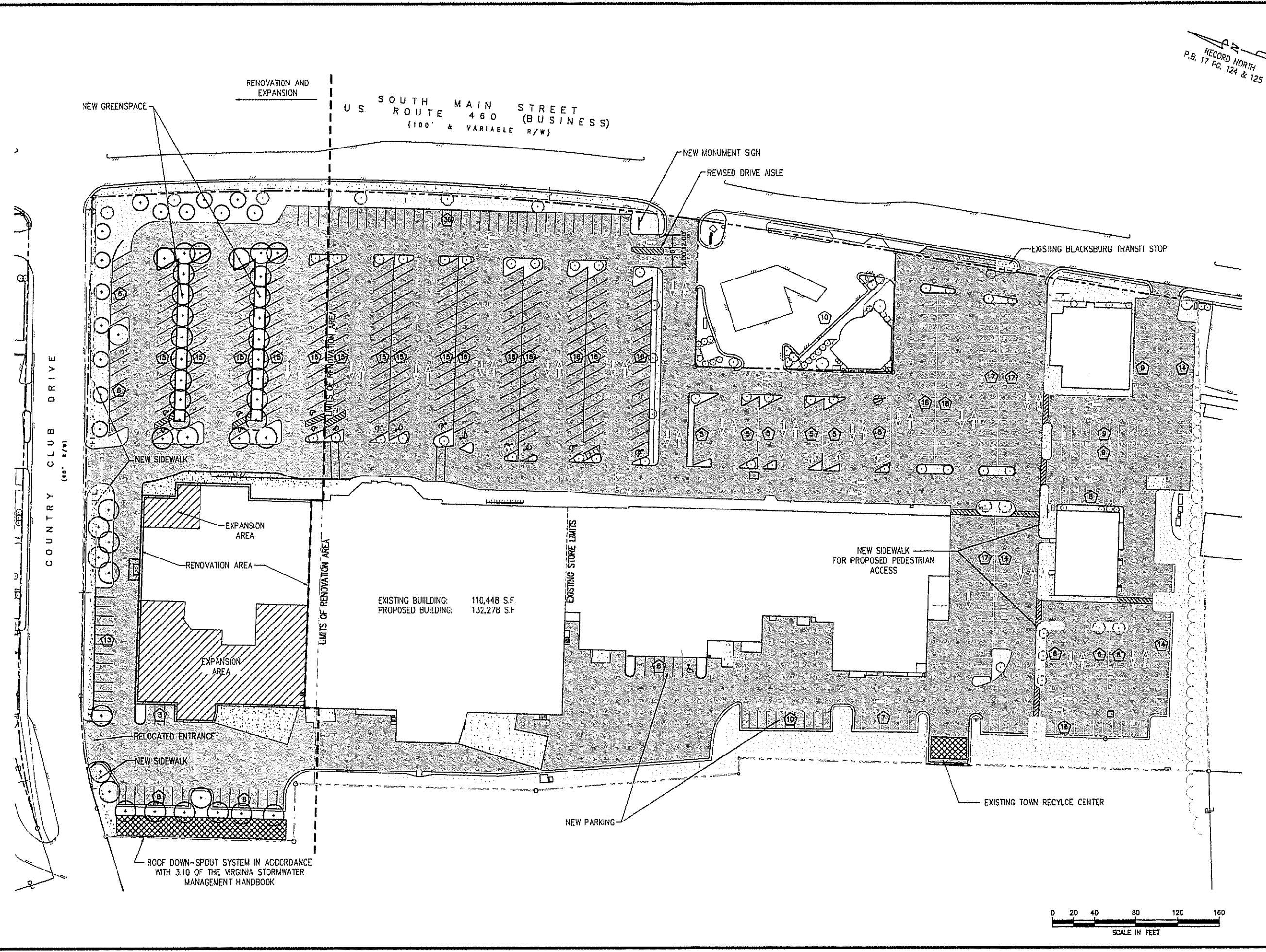
*9. Loading area shall be sited in such a way as to minimize the impact on any surrounding neighborhood.* As part of the expansion, an additional loading area will be added to the rear of the building. The orientation and architectural design of the area has been done to minimize the impacts on the surrounding environment. The new truck loading dock will be enclosed and oriented so that the opening is away from the street.

*10. Parking shall be located behind the front line of the principal building. The Planning Commission or the Zoning Administrator may grant an exception to this requirement when necessary due to the shallow depth of a parcel, the location of existing mature trees, the protection of existing residential zoning, or other similar circumstances. Conditions including increased landscaping and enhanced pedestrian paths may be applied in granting such exception or in approving the special use permit.* Concurrent with this request for a Special Use Permit a request is being made for an exception to this parking requirement. With this project, the existing building that currently houses the State ABC store will be removed. In place of this building, additional parking will be installed. Although located in front of the principal building, it is appropriate to add parking in this location. It will be located totally within the limits of the existing parking lot and at a substantially lower elevation than the surrounding public right-of-way. In addition to the new parking spaces, some of the existing parking area will be re-striped to allow for more parking. Currently some of the spaces are larger than needed and will be re-striped to meet Town requirements and provide more parking.

To help minimize the impact of the new, as well as the existing parking lot, additional landscaping and trees will be planted. The new trees include Town approved parking lot trees as well as additional street trees in the vicinity of the expansion. To enhance pedestrian use and

safety, a sidewalk with associated green planting strip is to be installed along Country Club Drive where none currently exists. This sidewalk will have an extension to connect to the principal structure's front entrances.

Also, as part of the Special Use Permit process, there are proposed new sidewalks and crosswalks to allow for and improve safety for pedestrians circulating within the site. This new pedestrian way will connect the existing Blacksburg Transit Stop with elements within the Gables Shopping Center, as well as provide safer, delineated walkways from the Transit Stop to adjoining properties to the South and West.



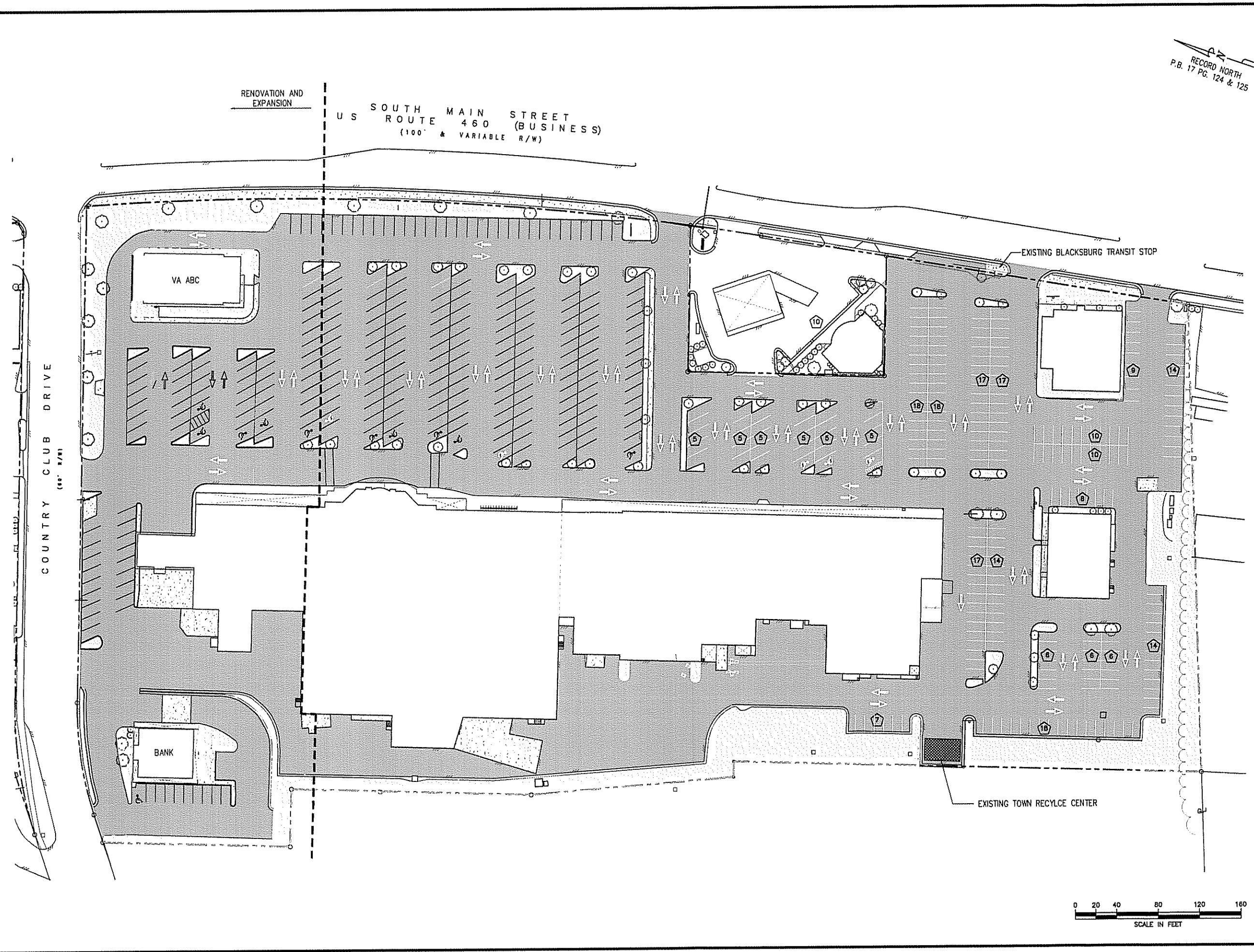
**GAY AND NEED, INC.**  
CIVIL ENGINEERING  
LAND PLANNING  
SURVEYING  
328 Mountain Avenue S.W.  
Roanoke, Virginia 24016  
Phone: (540) 545-1110 Fax: (540) 545-1550  
E-mail: info@gayandneed.com

Kroger #R-402  
Gables Shopping Center  
Expansion  
Proposed Conditions  
Exhibit

COMMONWEALTH OF VIRGINIA  
MICHAEL G. GAY  
Lic. No. 17560  
PROFESSIONAL ENGINEER

REVISED:

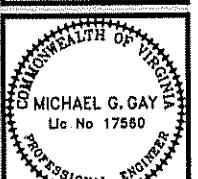
DESIGNED/CALC: MGG  
CHECKED:  
DRAWN:  
SCALE:  
DATE:  
1' = 40'  
07/30/07  
PLJ  
JOB NO. 1489.0  
SHEET 1 OF 1



DESIGNED/CALC:  
CHECKED:  
DRAWN:  
SCALE:  
DATE:  
PLT  
1" = 40'  
07/30/07

JOB NO. 1489.0  
SHEET 1 OF 1

Kroger #R-402  
Gables Shopping Center  
Expansion  
Town of Blacksburg, Virginia



REVISED:

**GAY AND NEEL, INC.**  
CIVIL ENGINEERING  
LAND PLANNING  
SURVEYING  
320 Mountain Avenue S.W.  
Roanoke, Virginia 24016  
Phone: (540) 345-1110 Fax: (540) 345-5560  
Email: info@gnpl.com

PROFESSIONAL ENGINEER  
MICHAEL G. GAY  
Lic No 17560

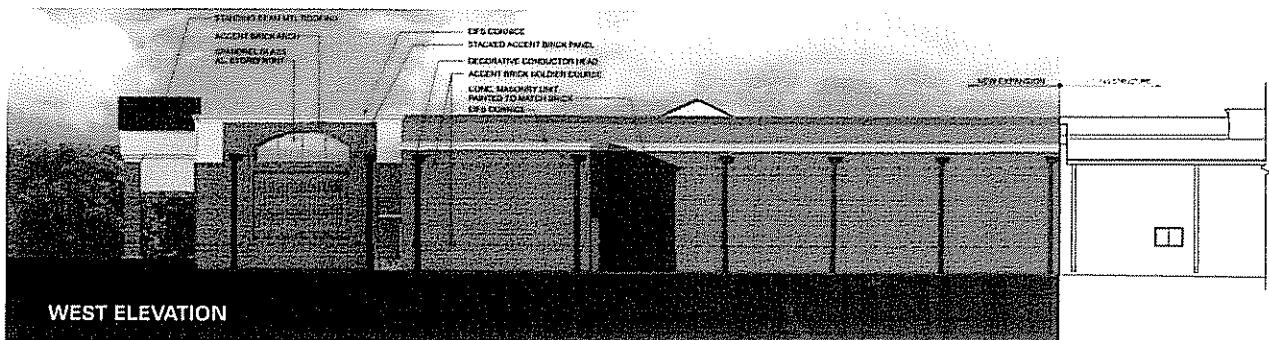
Baskerville

ask + listen + create

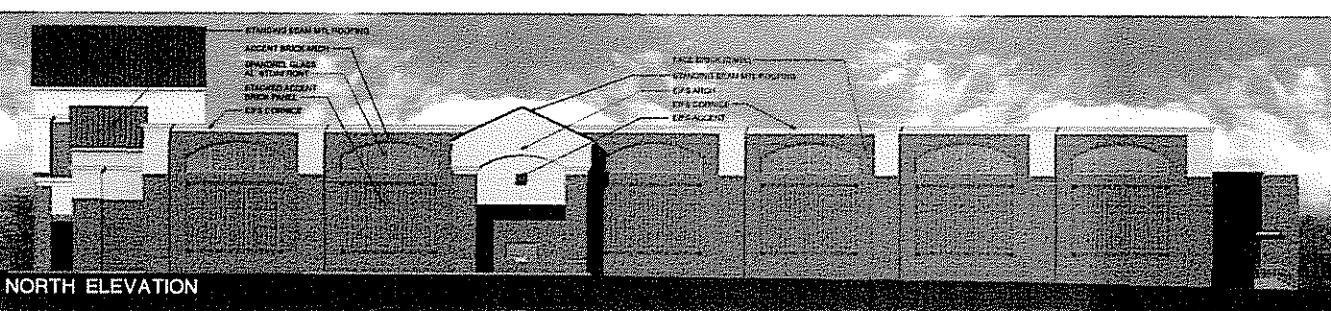
Ship to or visit  
101 S 15th St  
Ste 200 - 23219

P. O. Box 400  
Richmond, Va.  
23218-0400

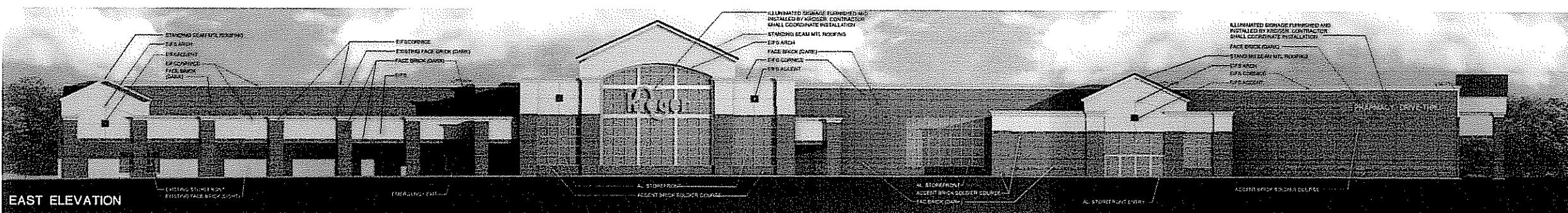
804.343.1010  
fax 343.0909  
[baskerville.com](http://baskerville.com)



#### WEST ELEVATION



**NORTH ELEVATION**



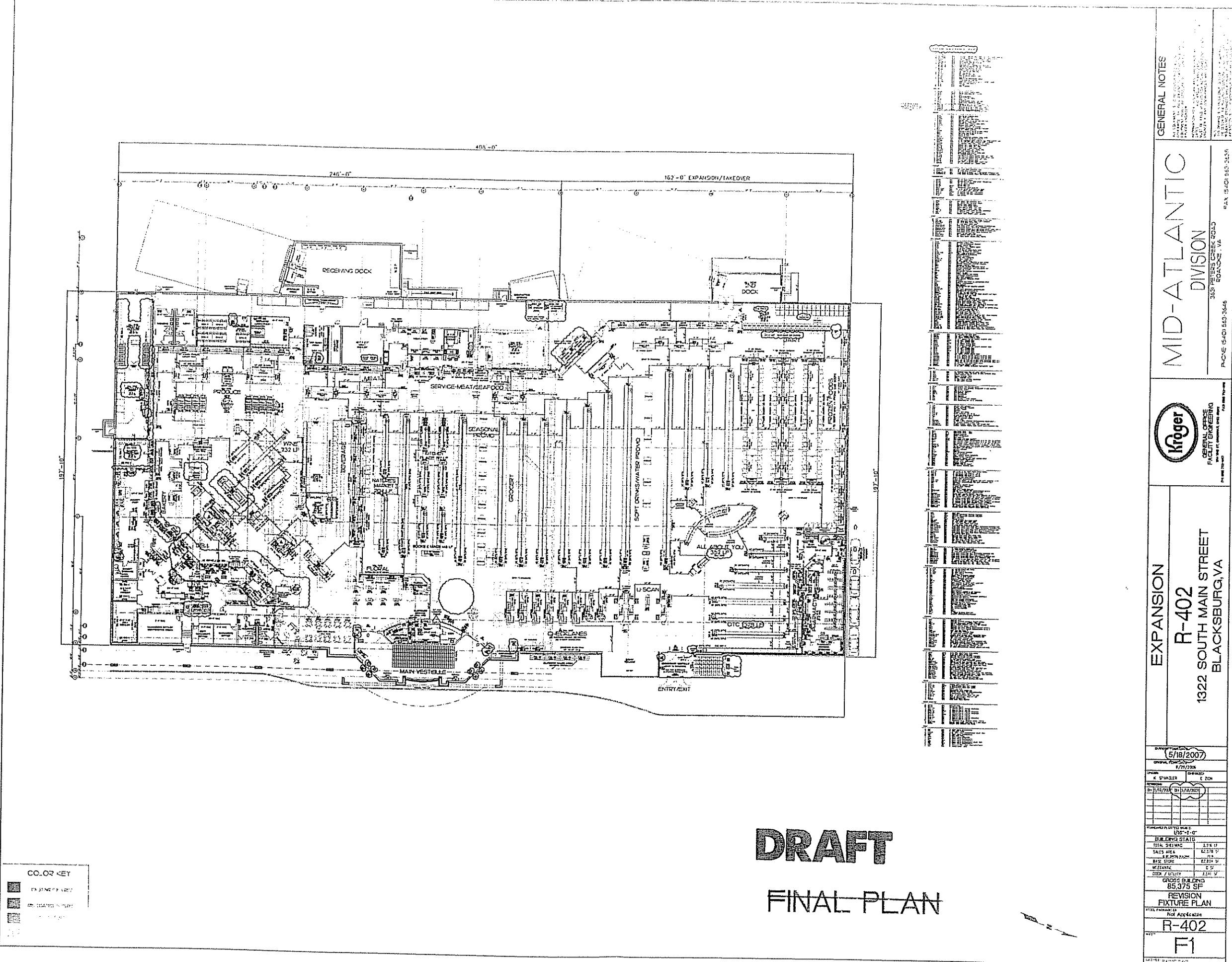
## EAST ELEVATION

baskerville.com



# **EXPANSION OF KROGER AT GABLES PROPOSED ELEVATIONS**

architecture  
engineering  
interior design



Kroger Gables Shopping Center  
Adjoining Property Owners

Parcel ID	Tax Map No.	Name of Property Owner	Mailing Address
006787	287-A 41	Kroger Limited Partnership I	c/o Charlene Anderson - Real Estate Department 1014 Vine Street Cincinnati, OH 45202
008060	287-A 36	Llamas LLC	P.O. Box 10397 Blacksburg, VA 24062
015309	287-A 37	Clarice S. Pritchard Estate	c/o NBB Trust Department P.O. Box 90002 Blacksburg, VA 24062
023024	287-A 37A	Legend Blacksburg Square LLC	2 Marseille Drive Locust Valley, NY 11560
023439	287-A 37BB	Blacksburg Partners	c/o Brandywine Financial Serv. P.O. Box 999 Chadds Ford, PA 19317
023541	287-A 37D	BNE Restaurant Group III LLC	c/o RASH #56-46-28110 P.O. Box 260888 Plano, TX 75026
026346	287-A 40	Gran Apartments	c/o Kevin Pearson 1480 South Main Street Blacksburg, VA 24060
031847	287-A 41A	Diversified Investors XIII LLC	P.O. Box 10397 Blacksburg, VA 24062
032041	287-A 37C	American Telephone & Telegraph Company of Virginia	c/o Jim Diferdinando, Tax Dir. P.O. Box 7201 Bedminster, NJ 07921
033645	287-A 38C	Kroger Limited Partnership I	c/o Charlene Anderson - Real Estate Department 1014 Vine Street Cincinnati, OH 45202
036087	287-19 3B	Kenneth H. & Vanessa M. McCoy	1919 Estates Drive Blacksburg, VA 24062

## Kroger #402 Gables Shopping Center Expansion Traffic Analysis

To analyze the need for a right-turn lane and left-turn lane, existing Virginia Department of Transportation Annual Average Daily Volume Estimates for the Town of Blacksburg were used to generate a peak hour volume of traffic using Country Club Drive. In addition to the VDOT traffic data, the ITE Trip Generation Manual, 7<sup>th</sup> Edition, was used to generate traffic volume for the future Expanded Kroger-Gables Shopping Center. Using these two sources, the number of left-in and right-in turns off of Country Club Drive can be estimated using methodology from the VDOT Road Design Manual.

Using the ITE Trip Generation Method, it is estimated that a peak hour volume of 466 cars would be entering the Shopping Center. It is then assumed that 30 percent of this volume would utilize the entrances along Country Club Drive. This gives a volume of 140 cars. From the 140 cars, it is assumed that 30 percent of these cars would be making a right turn into the Shopping Center. This volume is 42 cars.

From the VDOT Traffic Estimates, it shows the Average Daily Traffic (ADT) for Country Club Drive to be 4200 cars. Using Figure C-1-8 from the VDOT Road Design Manual, a directional PHV can be generated using the VDOT Traffic Estimates. This calculation is as follows:

$$\text{PHV} = \text{ADT} \times K \times D$$

K = the percent of AADT occurring in the peak hour = 0.1072

D = the percent of traffic in the peak direction of flow = 0.5067

$$\text{PHV} = 4200 \times 0.1072 \times 0.5067 = 228 \text{ cars}$$

Because the number of right turns is greater than 40 cars and the PHV is less than 300 cars, both the number of right turns and the PHV can be reduced by 20 cars giving a PHV of 208 cars and the number of cars turning right into the Shopping Center to be 22 cars. Plugging these numbers into Figure C-1-8, shows there to be no need for the construction of a dedicated right-turn lane. Only the appropriate radius treatment is needed.

The VDOT Traffic Estimates are also used to determine if there needs to be dedicated left turn lane into the Shopping Center. For this calculation the directional PHV generated above is used to determine advancing and opposing volumes. 228 cars are assumed to be going in each direction. Plotting this information onto Figure C-1-1.7, assuming 30 percent of the total traffic entering the shopping center is turning left into the Shopping Center from Country Club Drive, shows there to be no need for a dedicated Left-Turn Lane into Gables Shopping Center.

## Virginia Department of Transportation

Traffic Engineering Division

2005

Annual Average Daily Traffic Volume Estimates By Section of Route  
Town of Blacksburg

Link ID	Route Prefix	Route Number	Route Suffix	Route Label	Route Alias	Physical Jurisdiction	Maintenance Jurisdiction	Length	Start Label	End Label	AADT	AADT Quality	Percent 2 and 4 Tire Vehicles	Percent Busses	Trucks 2 Axle	Trucks 3+ Axle	Percent 1 Trailer	Percent 2+ Trailer	Percent on Trucks	Percent on Trucks	Vehicle Classification	K Factor	K Factor Quality	Direction Factor	AAWDT	AAWDT Quality	Data Date	Comment	Percent Single Unit		Percent Combinational		Percent Combinational	
607200	SR	00412	VA 412	Prices Fork Rd	Prices Fork Rd	150 Town of Blacksburg	150 Town of Blacksburg	1.07	US 460	Toms Cree	27000	G	98%	0%	1%	0%	0%	0%	C	0.0928	F	0.5898	29000	G	2005									
607205	SR	00412	VA 412	Prices Fork Rd	Prices Fork Rd	150 Town of Blacksburg	150 Town of Blacksburg	0.28	Toms Cree Main St	17000	G	98%	0%	1%	0%	0%	0%	F	0.0864	F	0.5597	19000	G	2005										
020451	US	00460	US 460			150 Town of Blacksburg	060 Montgomery County	0.40	NCL Black Bus US 46	12000	G	90%	1%	1%	1%	7%	1%	F				12000	G	2005										
781594	US	00460	US 460			150 Town of Blacksburg	060 Montgomery County	3.30	Bus US 46 SR 412 Pri	13000	F	90%	1%	1%	1%	7%	1%	C	0.0993	F	0.6978	14000	F	2005										
781947	US	00460	US 460			150 Town of Blacksburg	060 Montgomery County	2.97	SR 412 Pri Bus US 46	32000	G	94%	0%	1%	1%	3%	0%	C	0.0999	F	0.5253	34000	G	2005										
791001	US	00460	US 460			150 Town of Blacksburg	060 Montgomery County	0.72	BUS US 46 SCL Black:	32000	G	90%	1%	1%	1%	7%	1%	F	0.0937	F	0.6155	33000	G	2005										
607202	CBUS	00460	Bus US 460	Main St	150 Town of Blacksburg	150 Town of Blacksburg	1.01	US 460 Mount Tab	4200	G	98%	0%	1%	1%	0%	0%	C	0.0979	F	0.6729	4600	G	2005											
607201	CBUS	00460	Bus US 460	Main St	150 Town of Blacksburg	150 Town of Blacksburg	0.87	Mount Tab Patrick Her	7400	F	98%	0%	1%	0%	0%	0%	C	0.1018	F	0.6522	8100	F	2005											
607204	CBUS	00460	Bus US 460	Main St	150 Town of Blacksburg	150 Town of Blacksburg	0.44	Patrick Her Broce Dr	12000	G	98%	0%	1%	0%	0%	0%	F	0.0929	F	0.5959	13000	G	2005											
607195	CBUS	00460	Bus US 460	Main St	150 Town of Blacksburg	150 Town of Blacksburg	0.26	Broce Dr Progress S	14000	G	98%	0%	1%	0%	0%	0%	F	0.0895	F	0.5815	16000	G	2005											
607196	CBUS	00460	Bus US 460	Main St	150 Town of Blacksburg	150 Town of Blacksburg	0.17	Progress S Prices Fork	17000	G	98%	1%	1%	0%	0%	0%	C	0.0847	F	0.5646	19000	G	2005											
607207	CBUS	00460	Bus US 460	Main St	150 Town of Blacksburg	150 Town of Blacksburg	0.53	Prices Fork Roanoke S	18000	G	98%	0%	1%	0%	0%	0%	C	0.0833	F	0.5723	19000	G	2005											
607188	CBUS	00460	Bus US 460	Main St	150 Town of Blacksburg	150 Town of Blacksburg	0.19	Roanoke S Clay St	16000	G	98%	0%	1%	0%	0%	0%	F	0.0864	F	0.5751	18000	G	2005											
607206	CBUS	00460	Bus US 460	Main St	150 Town of Blacksburg	150 Town of Blacksburg	0.53	Clay St Upland Rd	18000	G	98%	0%	1%	0%	0%	0%	F	0.0869	F	0.5156	20000	G	2005											
607187	CBUS	00460	Bus US 460	Main St	150 Town of Blacksburg	150 Town of Blacksburg	1.00	Upland Rd Ellett Rd	18000	G	98%	0%	1%	0%	0%	0%	F	0.0881	F	0.5217	19000	G	2005											
607185	CBUS	00460	Bus US 460	Main St	150 Town of Blacksburg	150 Town of Blacksburg	1.33	Ellett Rd US 460. E.	19000	G	98%	0%	1%	0%	0%	0%	C	0.0916	F	0.5101	21000	G	2005											
780567	FR	00618	FR 618	Holiday Lane	150 Town of Blacksburg	060 Montgomery County	0.03	Dead End CL Blackst	0	?							X																	
785267	FR	00618	FR 618			150 Town of Blacksburg	060 Montgomery County	0.09	CL Blackst US 460 HC	0	?						X																	
607219	150	00002	150-2	University City Blvd		150 Town of Blacksburg	150 Town of Blacksburg	1.11	Prices Fork Toms Cree	7900	G	98%	2%	0%	0%	0%	0%	C	0.0919	F	0.5453	8700	G	2005										
790878	150	00003	150-3			150 Town of Blacksburg	150 Town of Blacksburg	1.46	150-3159 Bus US 46	0	?						X																	
790879	150	00004	150-4			150 Town of Blacksburg	150 Town of Blacksburg	0.31	150-3165 Dead End	0	?						X																	
607218	150	03150	150-3150	Country Club Dr		150 Town of Blacksburg	150 Town of Blacksburg	0.23	Southgate Country Cl	450	G	98%	0%	2%	0%	0%	0%	C	0.1529	F	0.6351	500	G	2005										
607216	150	03150	150-3150	Country Club Dr		150 Town of Blacksburg	150 Town of Blacksburg	0.40	Airport Rd Main St	3800	G	99%	0%	0%	0%	1%	0%	C	0.1072	F	0.5067	4200	G	2005										
607186	150	03151	150-3151	Ellett Rd		150 Town of Blacksburg	150 Town of Blacksburg	0.71	SCL Black: S Main St	2100	G	97%	0%	1%	1%	0%	0%	C	0.1009	F	0.5991	2300	G	2005										
607214	150	03152	150-3152	Prices Fork Rd		150 Town of Blacksburg	150 Town of Blacksburg	0.75	WCL Black Hethwood	11000	G	98%	0%	1%	1%	0%	0%	C	0.1079	F	0.5946	12000	G	2005										
607213	150	03152	150-3152	Prices Fork Rd		150 Town of Blacksburg	150 Town of Blacksburg	0.36	Hethwood Heather Dr	17000	G	98%	0%	1%	1%	0%	0%	F	0.0956	F	0.5996	18000	G	2005										
607212	150	03152	150-3152	Prices Fork Rd		150 Town of Blacksburg	150 Town of Blacksburg	0.58	Heather Dr US 460	26000	G	98%	0%	1%	1%	0%	0%	F	0.0888	F	0.5624	29000	G	2005										
607215	150	03153	150-3153	Airport Rd		150 Town of Blacksburg	150 Town of Blacksburg	0.37	Southgate Main Stree	2300	G	99%	0%	1%	0%	0%	0%	C	0.1150	F	0.5407	2500	G	2005	</td									

Route Name	Link Length	Start Label	End Label	AADT	AADT Quality	Percent 2 and 4 Tire Vehicles	Percent Busses	Percent Single Unit Trucks 2 Axle	Percent Single Unit Trucks 3+ Axle	Percent Combination Trucks 1 Trailer	Percent Combination Trucks 2+ Trailer	Vehicle Class Quality	K Factor	Direction Factor	AAWDT	AAWDT Quality	Data Date	
Main St	0.53	Clay St	Upland Rd	18000	G	98%	0%	1%	0%	0%	0%	F	0.0869	F	0.5156	20000	G	2005
Main St	1.00	Upland Rd	Ellett Rd	18000	G	98%	0%	1%	0%	0%	0%	F	0.0881	F	0.5217	19000	G	2005
Main St	1.33	Ellett Rd	US 460, ECL Blacksburg	19000	G	98%	0%	1%	0%	0%	0%	C	0.0916	F	0.5101	21000	G	2005
Country Club Dr	0.23	Southgate Dr	Country Club Dr	450	G	98%	0%	2%	0%	0%	0%	C	0.1529	F	0.6351	500	G	2005
Country Club Dr	0.40	Airport Rd	Main St	3800	G	99%	0%	0%	0%	1%	0%	C	0.1072	F	0.5067	4200	G	2005

	AADT	Peaking Hour Volume	% Total	AAWDT	Peaking Hour Volume	% Total
Country Club Dr. @ Kroger	3800	407	20%	4200	450	19%
Main Street @ Kroger	18000	1649	80%	21000	1924	81%
<b>Total Peak Traffic Adjacent to Kroger</b>	<b>21800</b>	<b>2056</b>		<b>25200</b>	<b>2374</b>	

**Gables Shopping Center (Existing Conditions)**

ITE Land Use Type	Independent Variable (Sizing Criteria)	Building Square Footage	Building Square Footage (x 1000 SF)	Weekday Average Rate	Weekday 24-Hour Total Daily Traffic	Directional Distribution	Average Vehicle Trip Ends													
							Weekday Peak Hour Average Rate		Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7-9AM		Weekday Peak Hour Average Rate		Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 11AM-1PM		Weekday Peak Hour Average Rate		Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4-6PM			
							Entering	Exiting	Entering	Exiting	Entering	Exiting	Entering	Exiting	Entering	Exiting	Entering	Exiting		
Shopping Center (820)	per 1.000 SF	57179	57 18	42 92	2455	1228	1227	1 03	59	36	23	3 74	214	103	111	6 78	388	187	201	
Specially Retail - ABC Store (814)	per 1.000 SF	4856	4 86	40 67	198	99	99	6 41	32	16	16	4 93	24	12	12	2 59	13	7	6	
Shopping Center (820)	per 1.000 SF	51874	51 87	42 92	2227	1114	1113	1 03	54	33	21	3 74	195	94	101	6 78	352	169	183	
<b>Total ITE Peak Hour Forecasted Trips Generated</b>						<b>4880</b>	<b>2441</b>	<b>2439</b>		<b>145</b>	<b>85</b>	<b>60</b>		<b>433</b>	<b>209</b>	<b>224</b>		<b>753</b>	<b>363</b>	<b>390</b>

**Gables Shopping Center (Proposed Conditions with Expansion)**

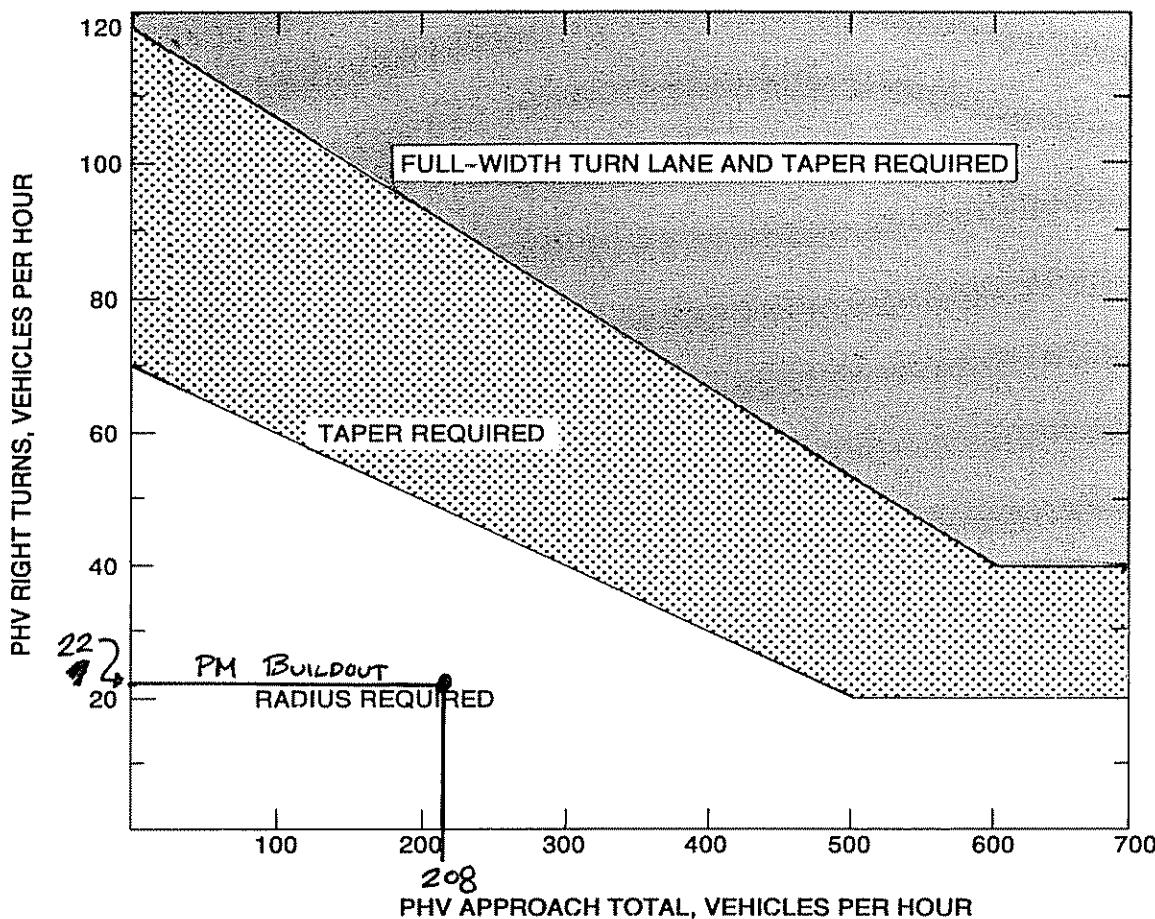
ITE Land Use Type	Independent Variable (Sizing Criteria)	Building Square Footage	Building Square Footage (x 1000 SF)	Weekday Average Rate	Weekday 24-Hour Total Daily Traffic	Directional Distribution	Average Vehicle Trip Ends													
							Weekday Peak Hour Average Rate		Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7-9AM		Weekday Peak Hour Average Rate		Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 11AM-1PM		Weekday Peak Hour Average Rate		Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4-6PM			
							Entering	Exiting	Entering	Exiting	Entering	Exiting	Entering	Exiting	Entering	Exiting	Entering	Exiting		
Shopping Center (820)	per 1.000 SF	57179	57 18	42 92	2455	1228	1227	1 03	59	36	23	3 74	214	103	111	6 78	388	187	201	
Shopping Center (820)	per 1.000 SF	85570	85 57	42 92	3673	1837	1836	1 03	89	55	34	3 74	321	155	166	6 78	581	279	302	
<b>Total ITE Peak Hour Forecasted Trips Generated</b>						<b>6128</b>	<b>3065</b>	<b>3063</b>		<b>148</b>	<b>91</b>	<b>57</b>		<b>535</b>	<b>258</b>	<b>277</b>		<b>969</b>	<b>466</b>	<b>503</b>

**Shopping Center Across Country Club Drive (Existing & Proposed Conditions)**

ITE Land Use Type	Independent Variable (Sizing Criteria)	Building Square Footage	Building Square Footage (x 1000 SF)	Weekday Average Rate	Weekday 24-Hour Total Daily Traffic	Directional Distribution	Average Vehicle Trip Ends													
							Weekday Peak Hour Average Rate		Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7-9AM		Weekday Peak Hour Average Rate		Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 11AM-1PM		Weekday Peak Hour Average Rate		Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4-6PM			
							Entering	Exiting	Entering	Exiting	Entering	Exiting	Entering	Exiting	Entering	Exiting	Entering	Exiting		
Radio Shack Shopping Center (820)	per 1.000 SF	8291	8 29	42 92	356	178	178	1 03	9	6	3	3 74	32	16	16	6 78	57	28	29	
Bank (912)	per 1.000 SF	2530	2 53	265 21	671	336	335	12 63	32	18	14	51 23	130	65	65	54 77	139	70	69	
<b>Total ITE Peak Hour Forecasted Trips Generated</b>						<b>1027</b>	<b>514</b>	<b>513</b>		<b>41</b>	<b>24</b>	<b>17</b>		<b>162</b>	<b>81</b>	<b>81</b>		<b>196</b>	<b>98</b>	<b>98</b>

### BUILDOUT CONDITIONS

- DIRECTIONAL PHV = 466
- ASSUME 30% USE COUNTRY CLUB DRIVE = 140 CARS
- ASSUME 30% USE RIGHT-TURN INTO KROGER = 42 CARS C-32
- BECAUSE PHV < 300 & RIGHT TURNS > 40  
 $42 - 20 = 22$  CAR RIGHT TURN



### LEGEND

PHV - Peak Hour Volume (also Design Hourly Volume equivalent)

### Adjustment for Right Turns

For posted speeds at or under 70 km/h (45 mph), PHV right turns > 40, and PHV total < 300.

Adjusted right turns - PHV Right Turns - 20

If PHV is not known use formula:  $\text{PHV} = \text{ADT} \times K \times D$

$K = \text{the percent of AADT occurring in the peak hour} = 0.1072$

$D = \text{the percent of traffic in the peak direction of flow} = 0.5067$

Note: An average of 11% for  $K \times D$  will suffice.

**FIGURE C-1-8 GUIDELINES FOR RIGHT TURN TREATMENT (2-LANE HIGHWAY)**

FROM EQUATION ABOVE

$$\text{PHV} = 4200 \text{ CARS} \times 0.1072 \times 0.5067 = 228$$

$$\text{PHV} = 228 < 300$$

$$\text{PHV} = 228 - 20 = 208$$

$$PHV = ADT \times K \times D$$

$$PHV = 4200 \times 0.1072 \times 0.5067 = 228 \text{ car}$$

$$30\% \text{ LEFT} = 69 \text{ cars}$$

C-10

### WARRANT FOR LEFT-TURN STORAGE LANES ON TWO-LANE HIGHWAYS

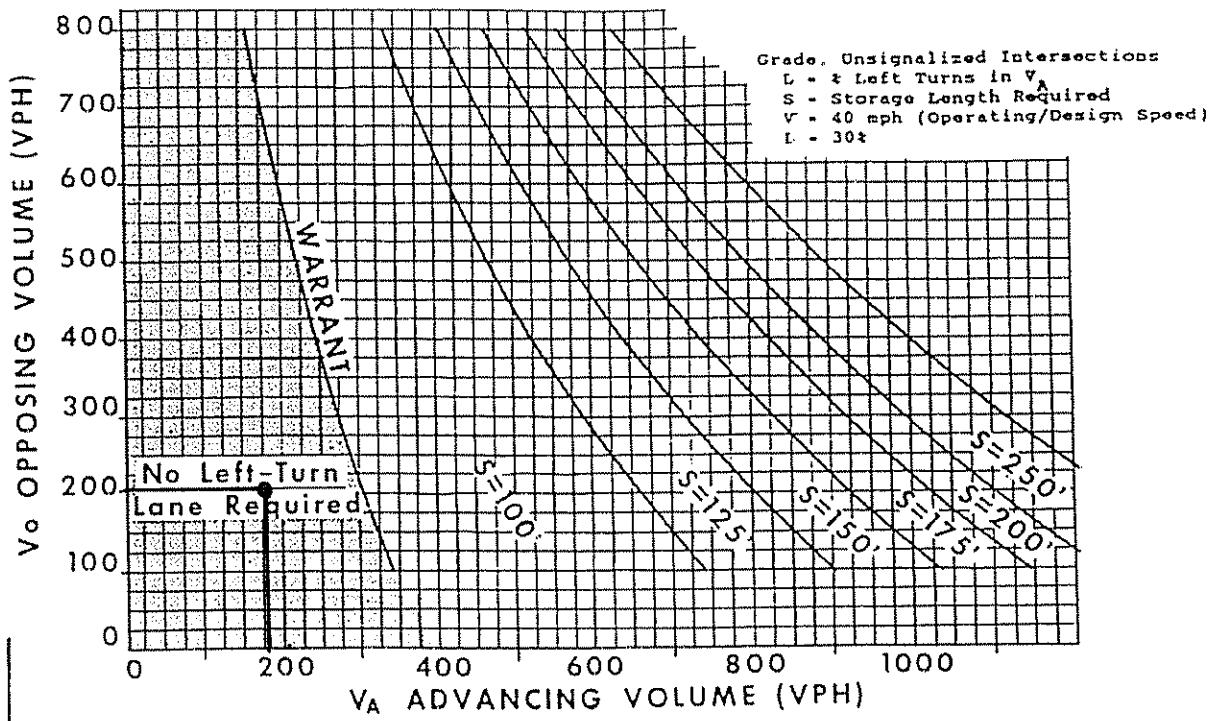


FIGURE C-1-1.6

\* BOTH TABLES SHOW THAT NO LEFT TURN WOULD BE REQUIRED IF 100% PHV TURNED LEFT

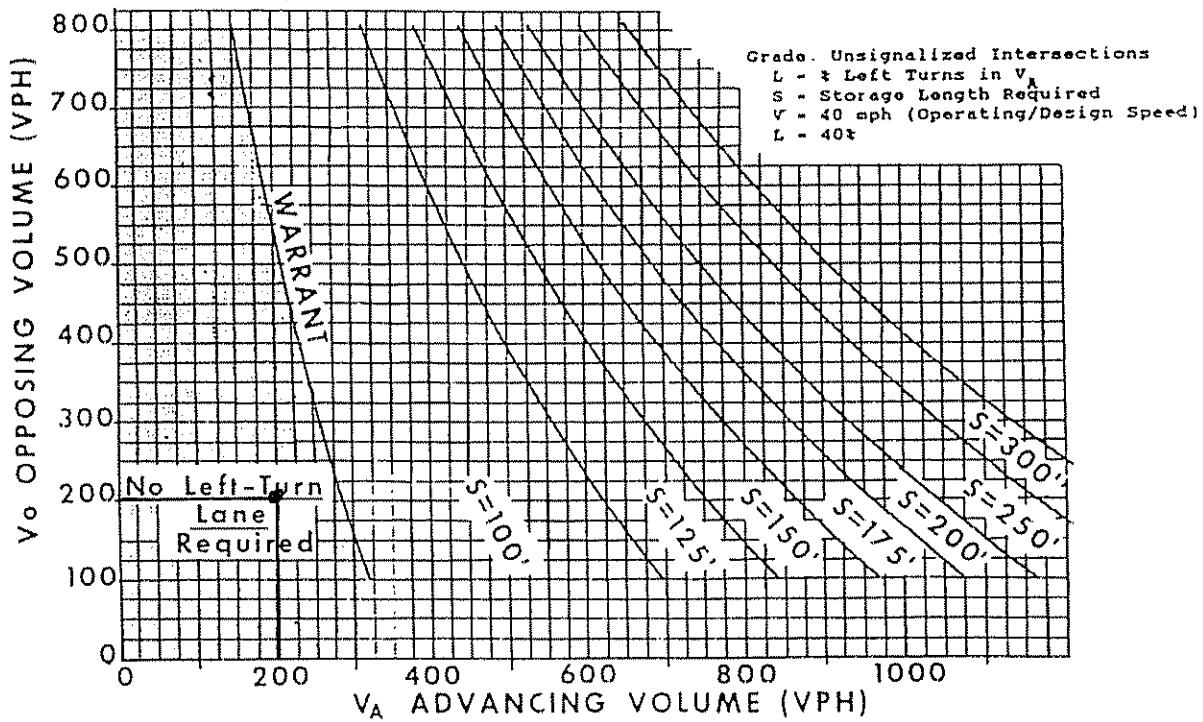


FIGURE C-1-1.7



APPROVED

HOME FINANCE

GOD PLAYS

DRAFTS					
NAME	DATA	LENGH	RADIUS	ANGLE	CHORD
1	15' 0"	75' 0"	37' 0"	90°	75' 0"
2	15' 0"	75' 0"	37' 0"	90°	75' 0"
3	15' 0"	75' 0"	37' 0"	90°	75' 0"
4	15' 0"	75' 0"	37' 0"	90°	75' 0"
5	15' 0"	75' 0"	37' 0"	90°	75' 0"

• 619 目次 S10044 4-21 月刊 (34) 1979

```

[000]
PMS-2020-07
2020-07-04T00:00:00Z-2020-07-04T00:00:00Z
[001]
PMS-2020-07-04T00:00:00Z-2020-07-04T00:00:00Z
[002]
PMS-2020-07-04T00:00:00Z-2020-07-04T00:00:00Z
[003]
PMS-2020-07-04T00:00:00Z-2020-07-04T00:00:00Z

```

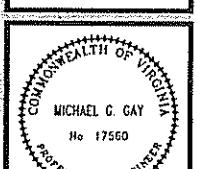
**GAY AND NEEL, INC.**  
CIVIL ENGINEERING  
LAND PLANNING  
SURVEYING  
3238 Mountain Avenue S.W.  
Roanoke, Virginia 24016  
(540) 545-1110 Telex (540) 214-5465

328 Mountain Avenue S.W.  
Roanoke, Virginia 24010  
Phone: (540) 345-1110 Fax: (540) 345-1115  
Email: info@graymatters.com

This is a detailed site plan for U.S. Route 460 Business in Blacksburg, Virginia. The map shows the road layout, property boundaries, and various features such as traffic signals, parking spaces, and utility poles. It includes a legend and a north arrow.

Kroger #R-402  
Gables Shopping Center  
Expansion

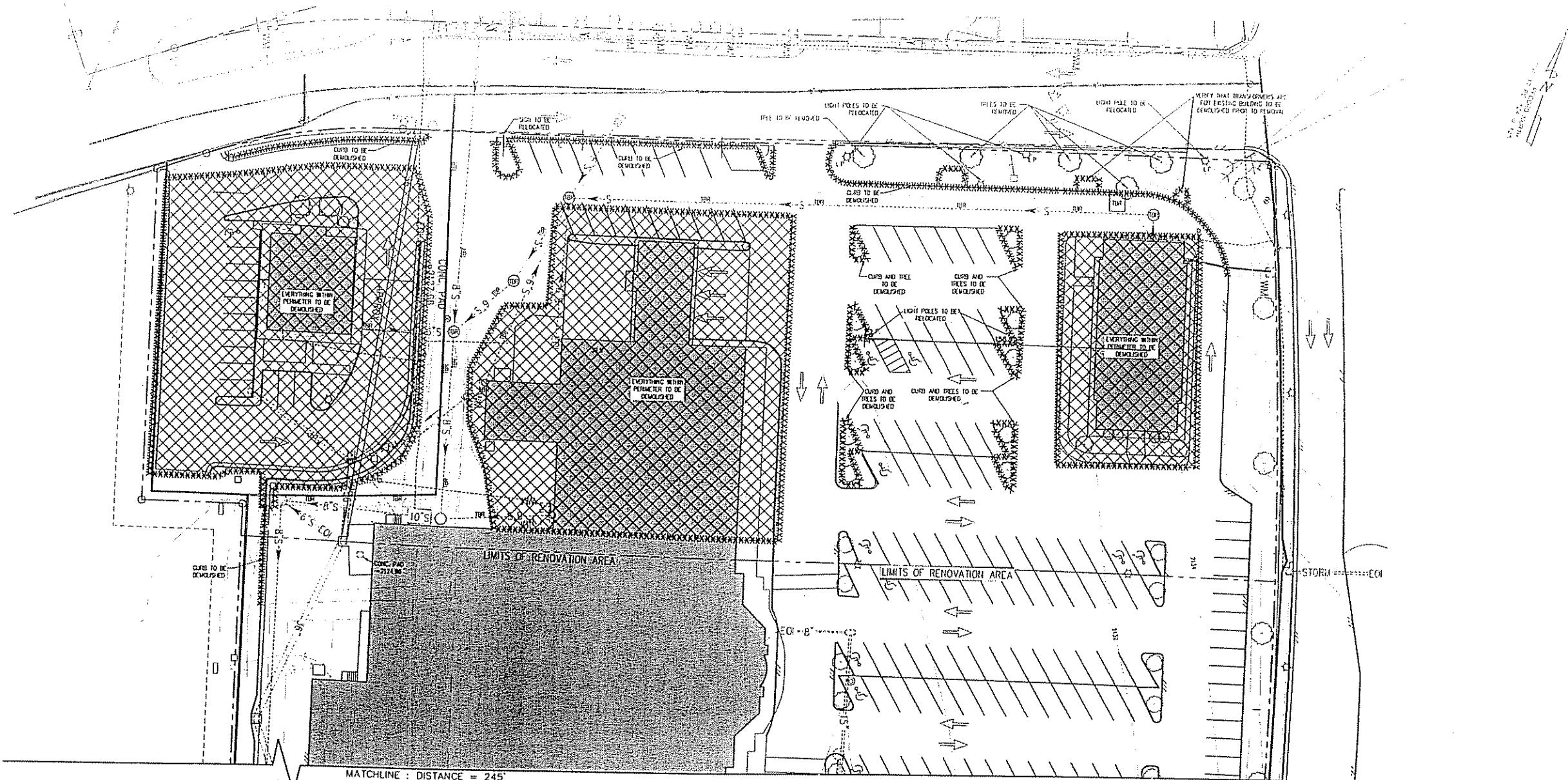
Town Of Blacksburg, VA



REVISED:  
25/11/03

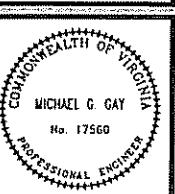
DESIGNED/CALCNCG,RCM
CHECKED:
DRAWN: AMC
SCALE: 1"=50'
DATE: 04/26/07
JOB NO. 14890
SHEET 2 OF 11

NOTE:  
ALL AREAS TO BE DEMOLISHED ARE SHADDED



Kroger #R-402  
Gables Shopping Center  
Expansion

Town Of Blacksburg, VA



REVISED:  
05/31/07

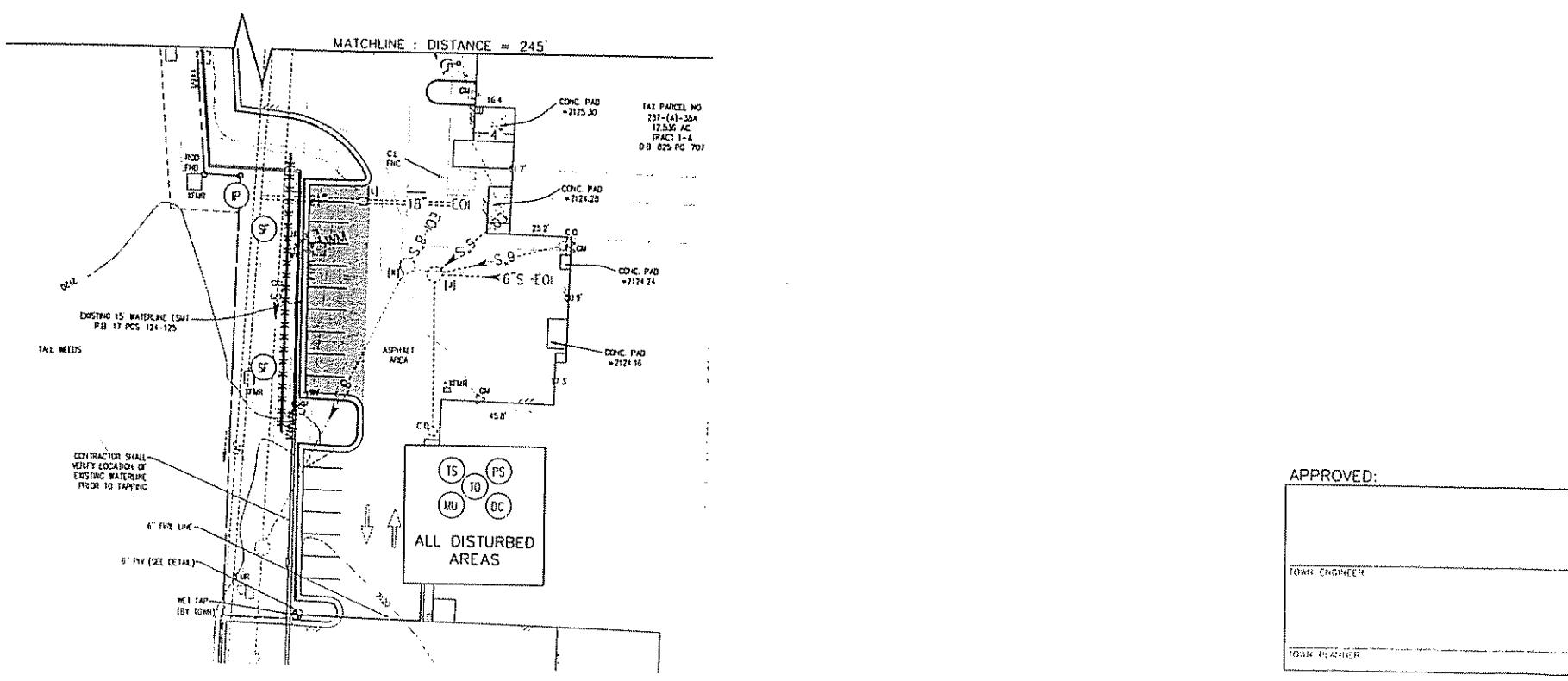
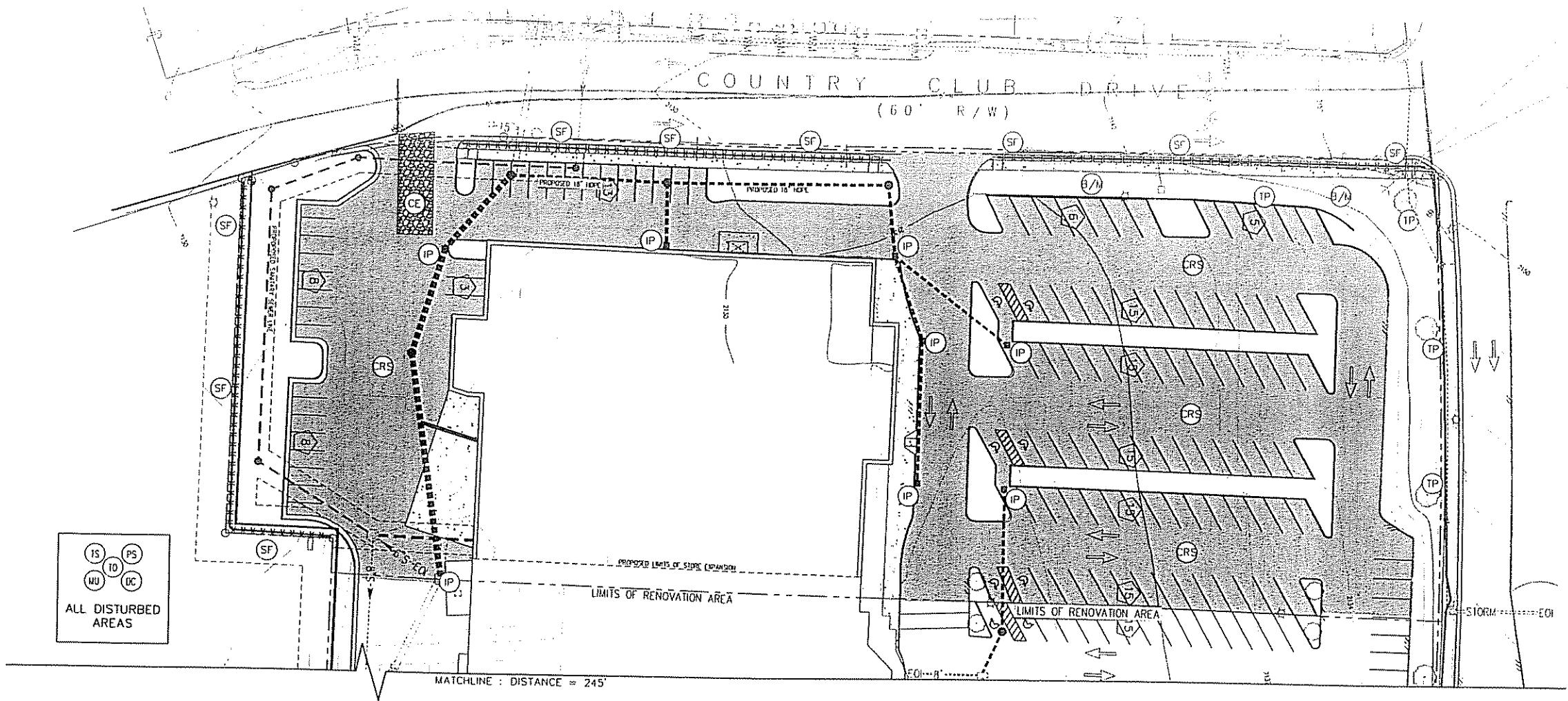
DESIGNED/CALCMGG RCM  
CHECKED:  
DRAWN:  
SCALE:  
DATE:  
04/26/07

JOB NO 1489 D  
SHEET 3 OF 11

APPROVED:  
TOWN ENGINEER  
TOWN PLANNER

GRAPHIC SCALE  
0 30 60  
1 inch = 30 ft

GAY AND NEEL, INC.  
CIVIL ENGINEERING  
LAND PLANNING  
SURVEYING  
328 Mountain Avenue S.W.  
Roanoke, Virginia 24016  
Phone: (540) 345-1110  
Fax: (540) 345-4455  
E-mail: [roanoke@gandn.com](mailto:roanoke@gandn.com)



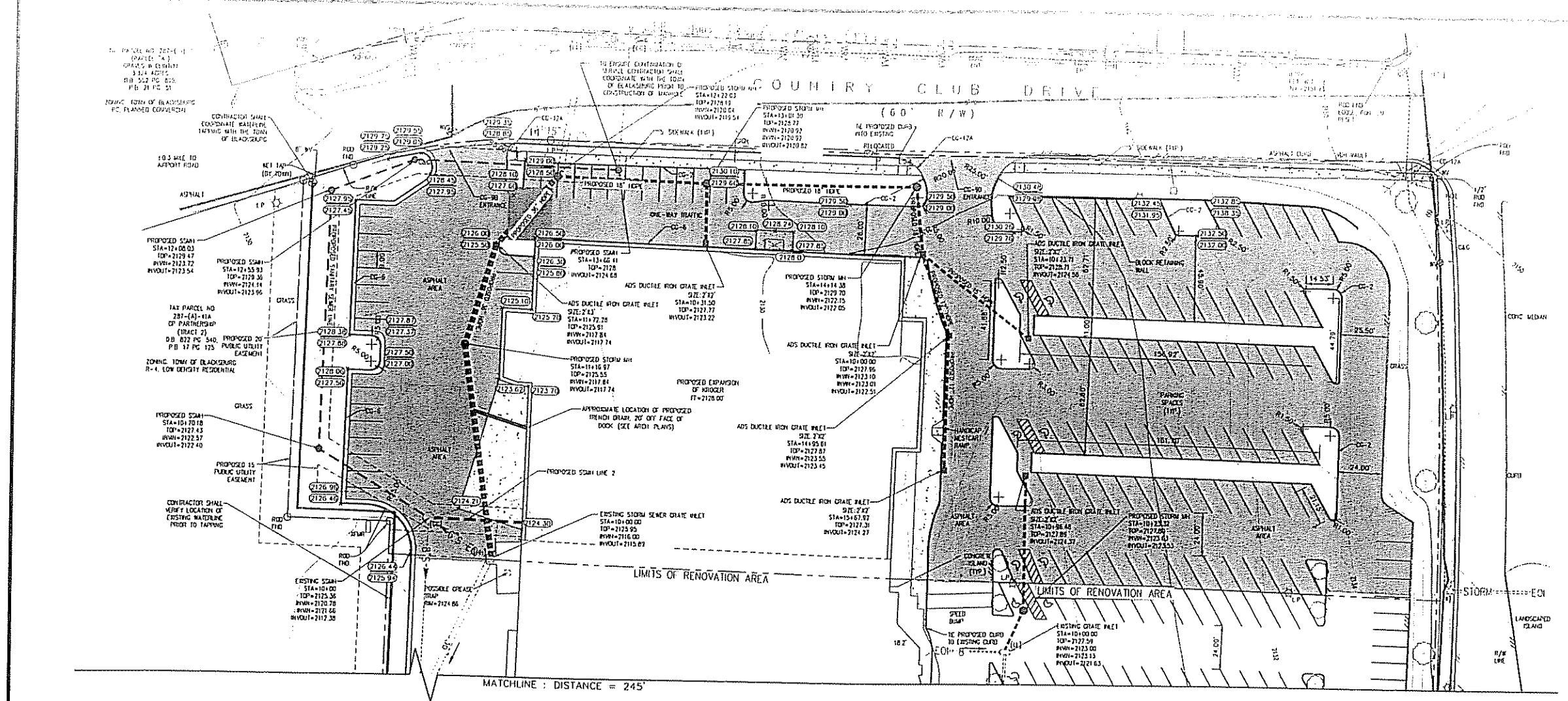
**Kroger #R-402  
Gables Shopping Center  
Expansion**

## Erosion and Sediment Control Plan



REVISED:  
05/31/07

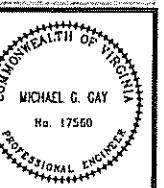
DESIGNED/CALCMGG.RCM
CHECKED:
DRAWN: AMC
SCALE: 1"=30'
DATE: 04/26/07
JOB NO 1489 0
SHEET 4 OF 11



# Gables Shopping Center Expansion

Grading and Utility  
Relocation Plan

Town Of Blacksburg, VA



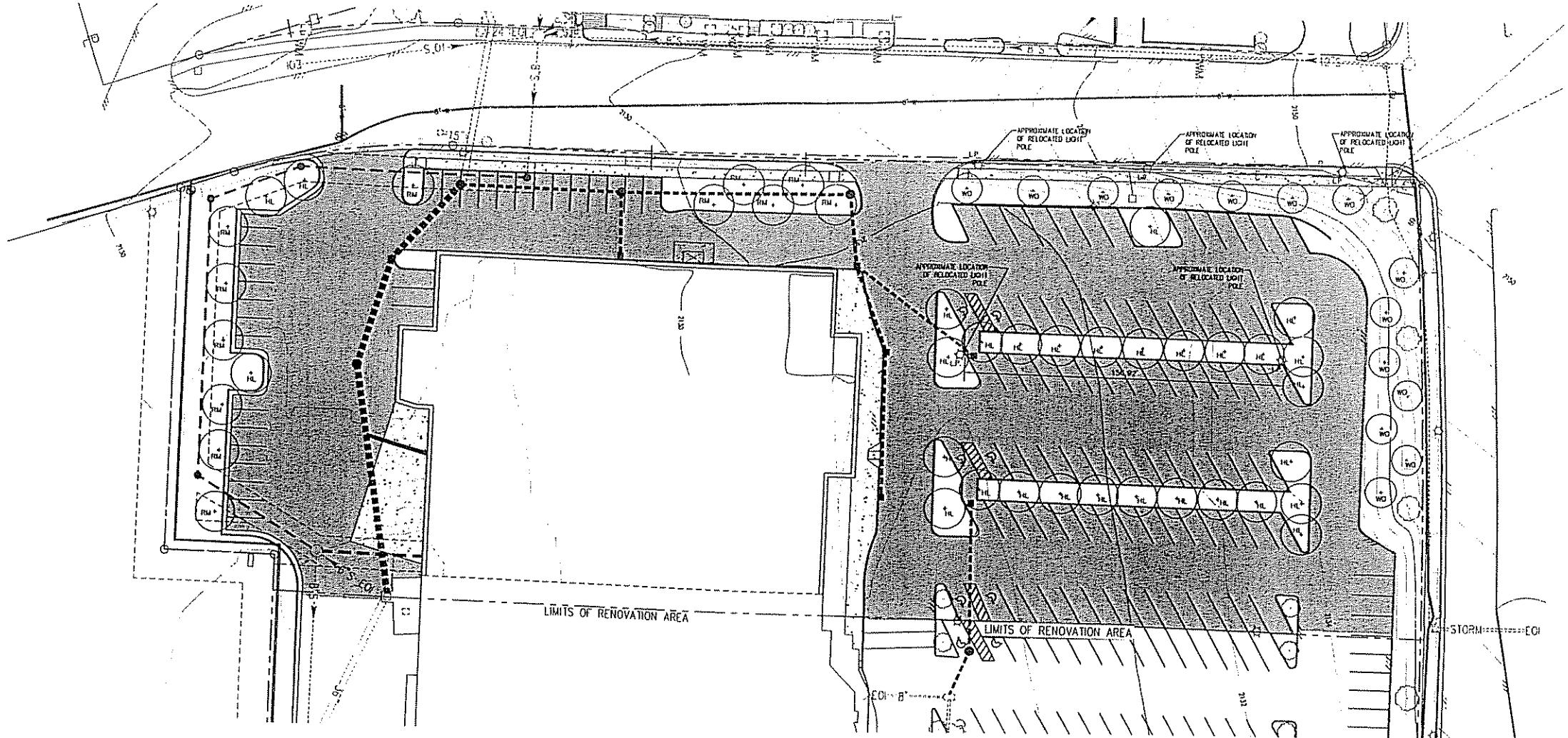
MISED:  
5/31/07

SIGNED/CALCMGG.RCM  
CHECKED:  
AWH: ANC  
ALE: 1°~30°  
ME: 04/26/07

3 NO	1489 D
EE1	5 OF 11

FREE CANOPY COVERAGE SUMMARY  
AREA IN HECTARES OF CONSTRUCTION 133.121  
PER FREE CANOPY CONSTITUTE AREA 15.000 %  
INTERFACADE AREA 0.25

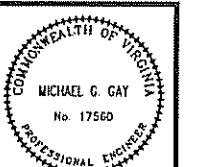
PLANTING SCHEDULE						
STOCK	COMMON NAME	BOTANICAL NAME	QUANTITY	CM	CANOPY	TOTAL CANOPY
HL	HONEY LOCUST	ELAEODIA TRICARPOS HERMANNII	30	2.5'	314	9420
RD	RED MAPLE	ACER ROBURN COLUMBIANUM	12	2.5'	314	3768
WD	WILLOW BARK	OVERLOS PHYLLOPS	34	7.5'	177	2478
						TOTAL COVERAGE 15666



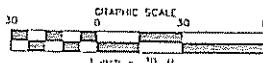
APPROVED:

TOWN ENGINEER

1



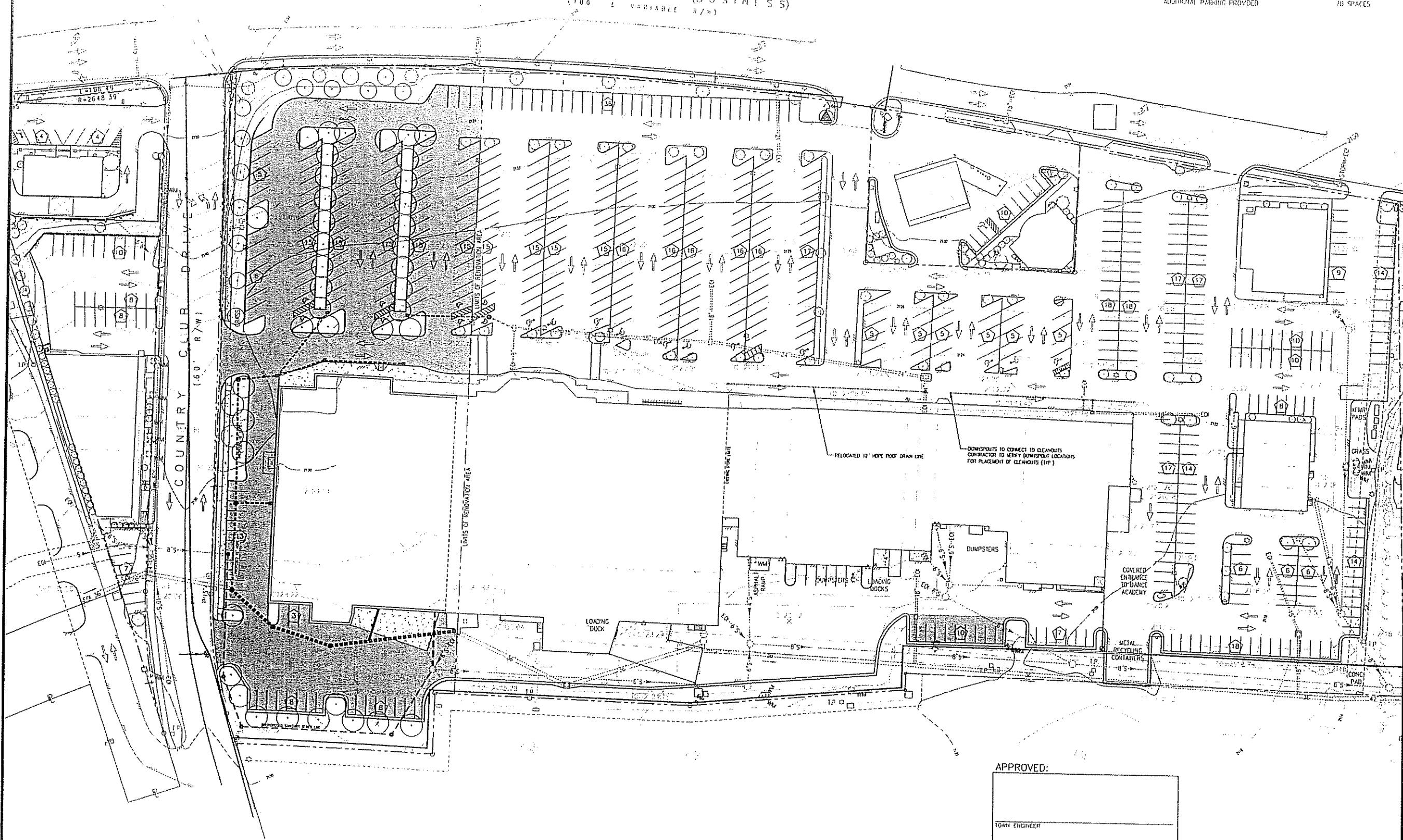
REVISED:  
05/31/07



DESIGNED/CALCMOC RCM  
CHECKED:  
DRAWN: AMC  
SCALE: 1" = 30'  
DATE 04/26/07

JOB NO 14890

SHEET 6 OF 11



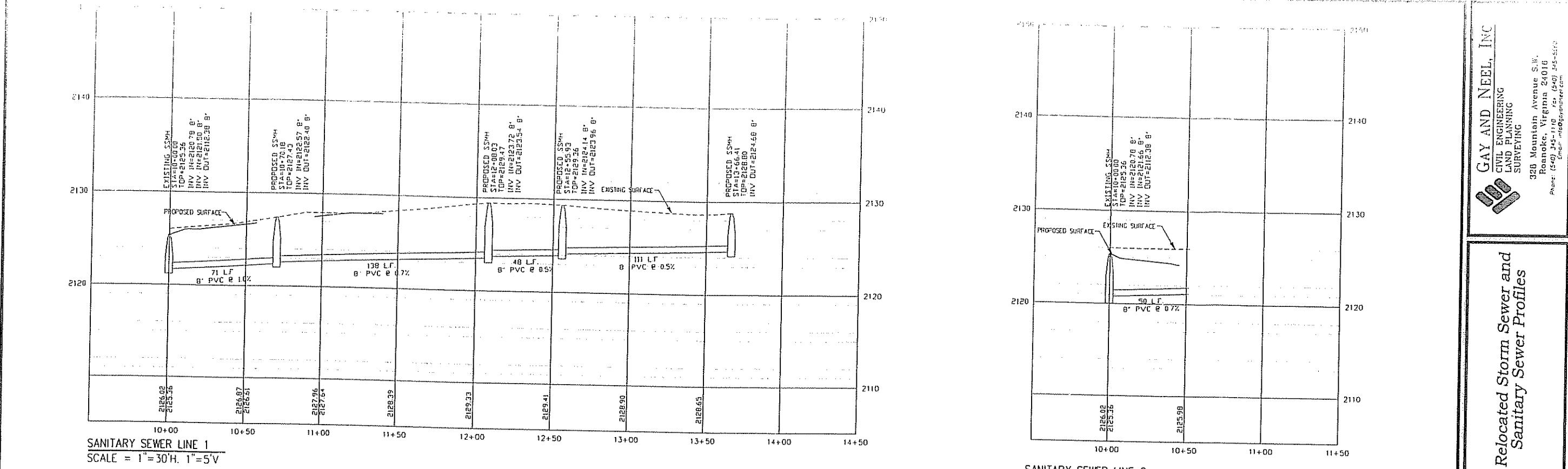
Kroger #R-402  
 Gables Shopping Center Expansion  
 Roof Drain and Relocated  
 Parking Lot Plan

Town of Blacksburg, VA  
 COMMONWEALTH OF VIRGINIA  
 MICHAEL G. GAY  
 No. 17560  
 PROFESSIONAL ENGINEER

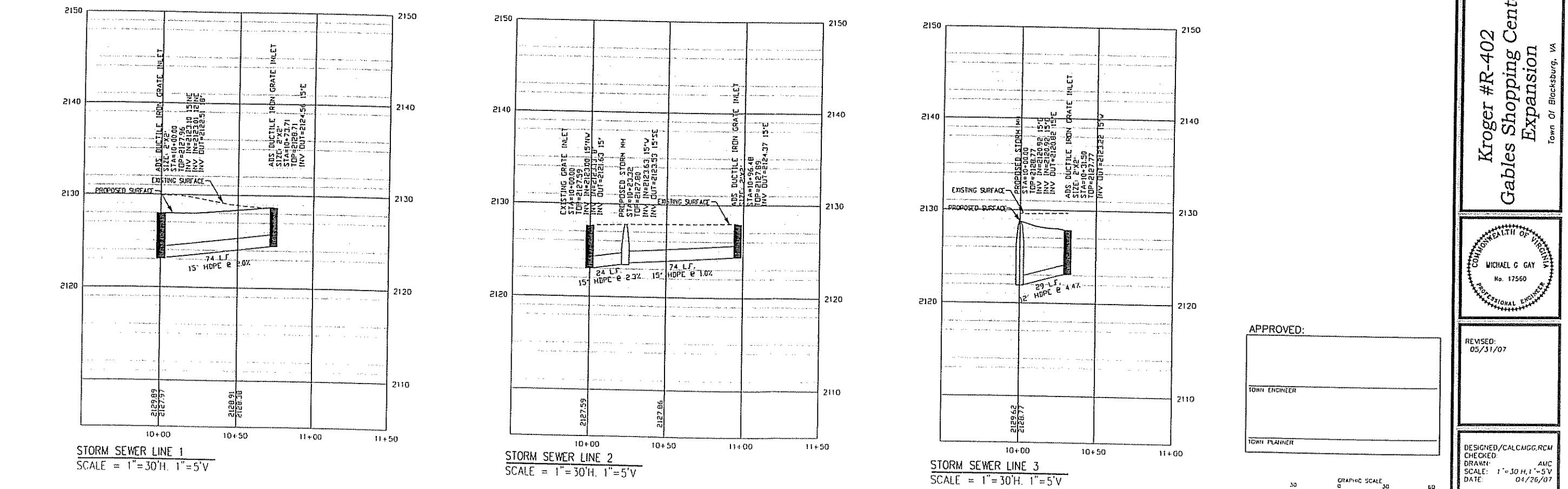
REVISED:  
05/31/07

DESIGNED/CALC/MGG RCM  
 CHECKED:  
 DRAWN: AMC  
 SCALE: 1:40  
 DATE: 04/26/07  
 JOB NO: 1489 O  
 SHEET 7 OF 11

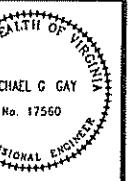
GAY AND NEEL, INC.  
 CIVIL ENGINEERING  
 LAND PLANNING  
 SURVEYING  
 329 Mountain Avenue S.W.  
 Roanoke, Virginia 24016  
 Phone: (540) 345-1116 Fax: (540) 345-5260  
[www.mgandn.com](http://www.mgandn.com)



**SANITARY SEWER LINE 2**  
SCALE = 1"=30'H. 1"=5'V



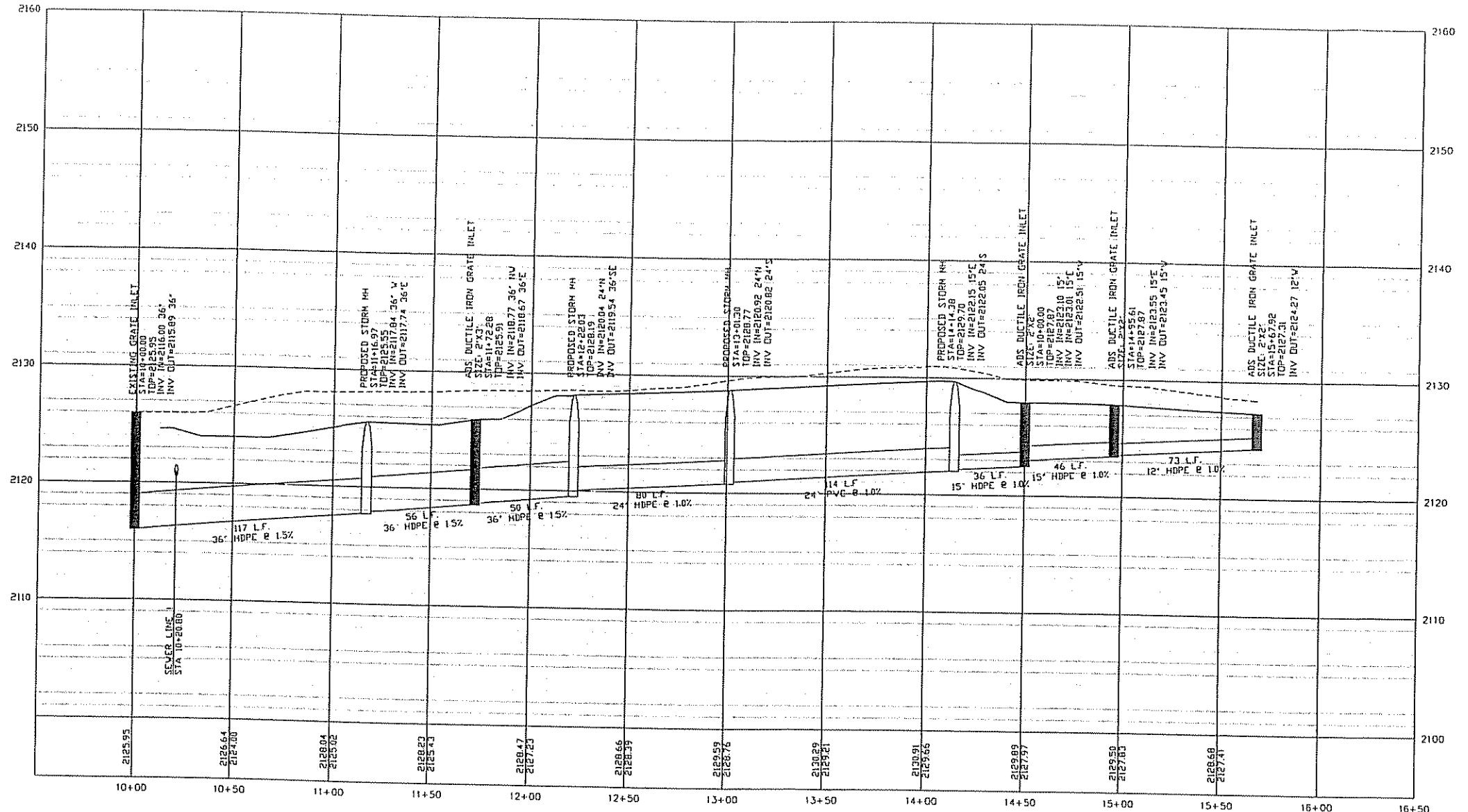
**Kroger #R-402  
Gables Shopping Center Expansion**  
Town Of Blacksburg, VA



REVISED:  
05/31/07

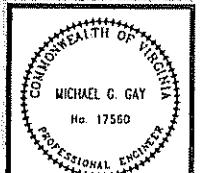
DESIGNED/CALC'DG.RCM  
CHECKED:  
DRAWN:  
SCALE: 1"=30'H, 1"=5'V  
DATE: 04/26/07  
JOB NO 1489 D  
SHEET 8 OF 11

**GAY AND NEEL, INC.**  
CIVIL ENGINEERING  
LAND PLANNING  
SURVEYING  
326 Mountain Avenue S.W.  
Roanoke, Virginia 24016  
Phone: (540) 545-4116 Fax: (540) 545-5472  
[www.gayandneel.com](http://www.gayandneel.com)



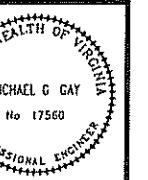
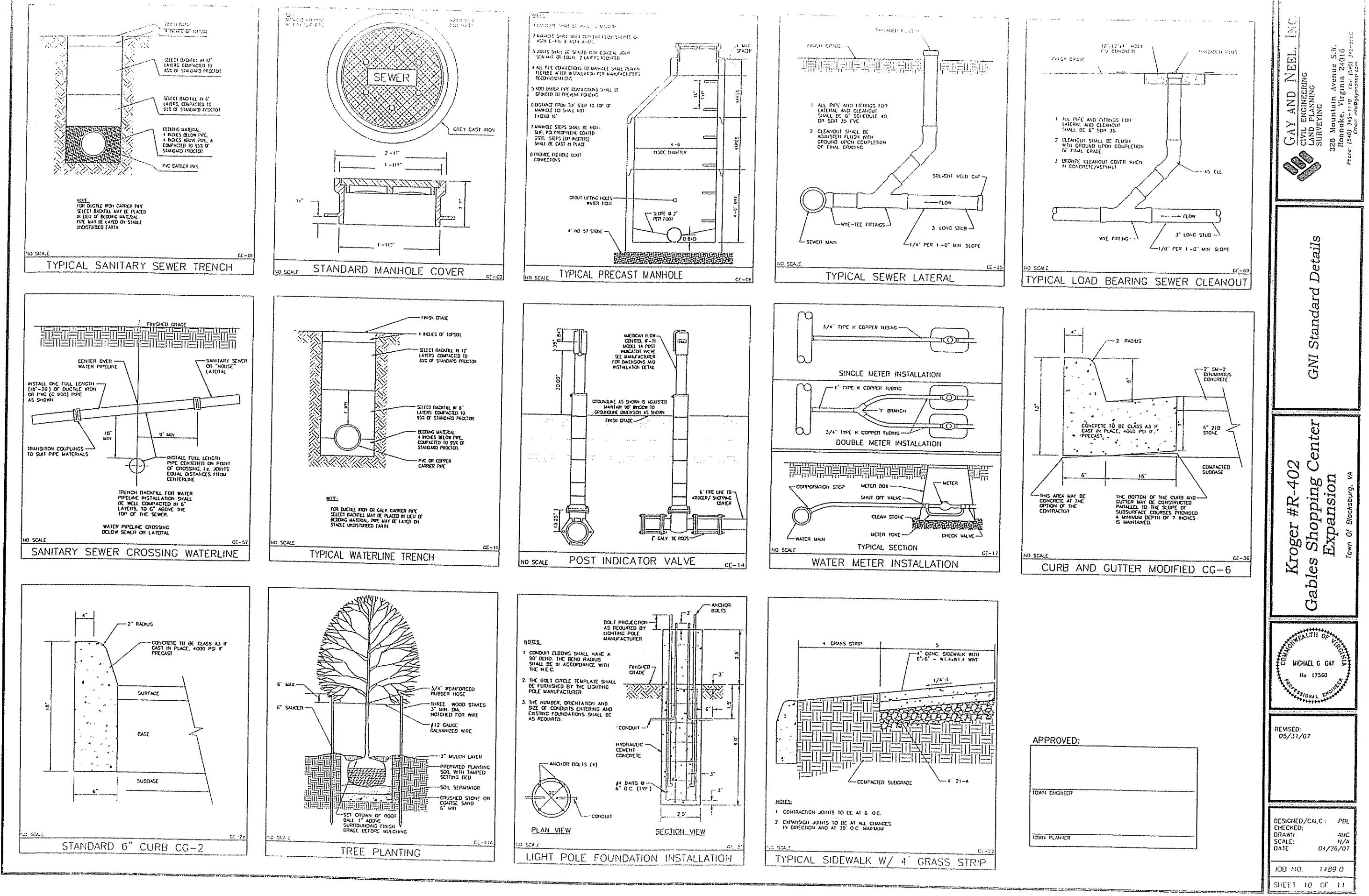
STORM SEWER LINE 4

REVISED:  
05/31/07



DESIGNED/CALCAGG.RCM  
 CHECKED:  
 DRAWN: AMC  
 SCALE: 1" = 30 H, 1" = 5 V  
 DATE: 04/26/07

JOB NO	1489 0
SHEET	9 OF 11

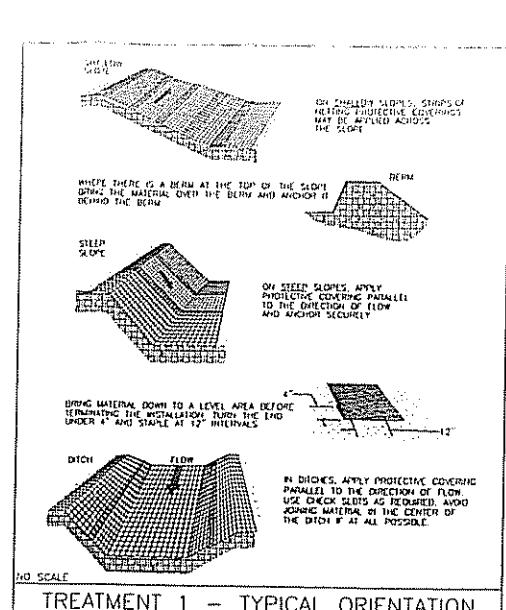
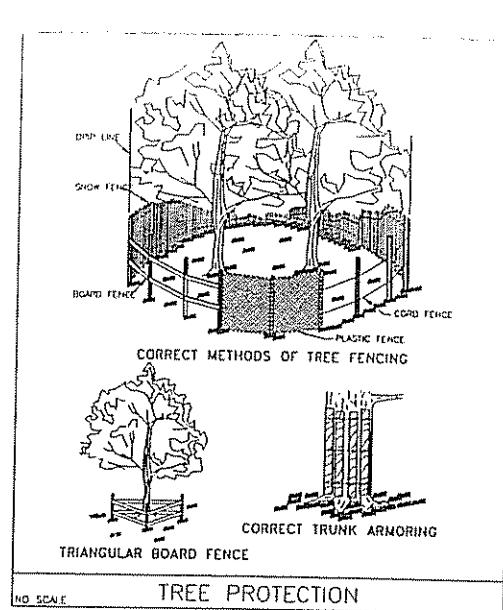
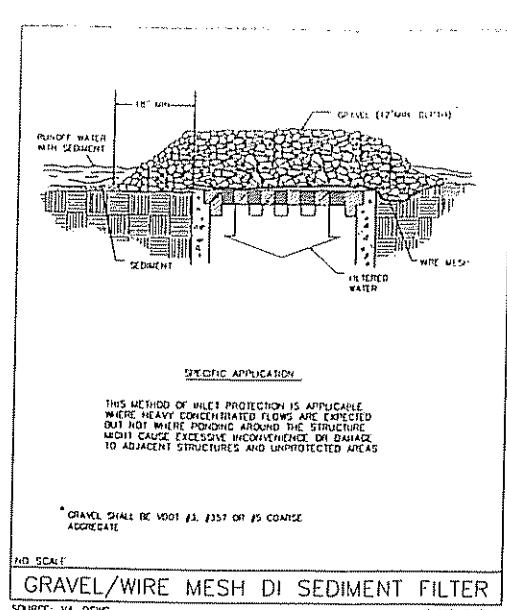
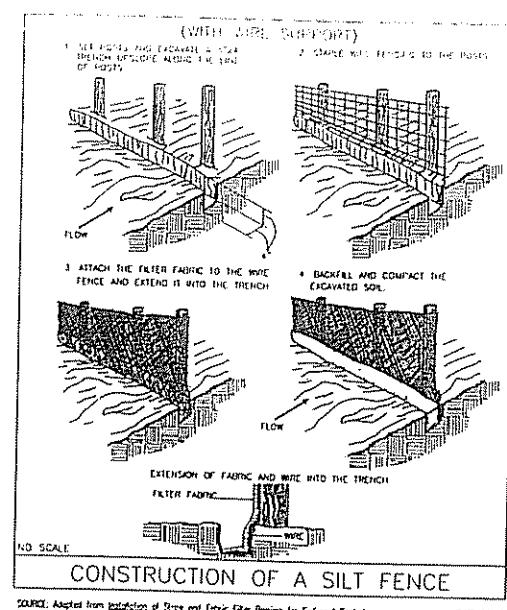
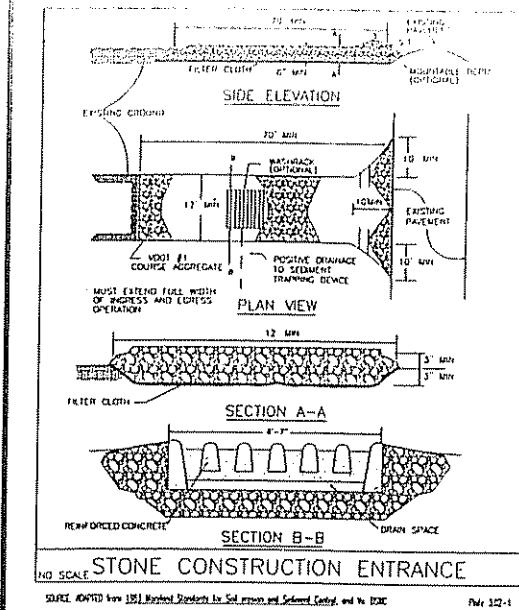


REVISED:  
05/31/07

DESIGNED/CALC.: PDL  
CHECKED: AMC  
DRAWN: N/A  
SCALE: N/A  
DATE: 04/26/07

JOB NO. 14890

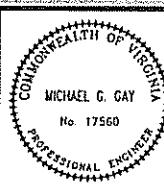
SHEET 10 OF 11



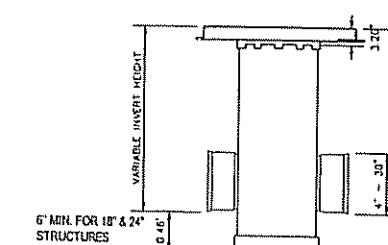
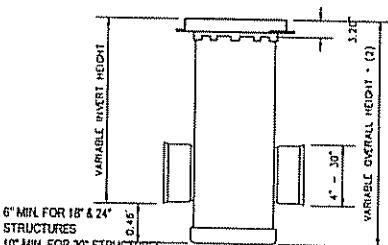
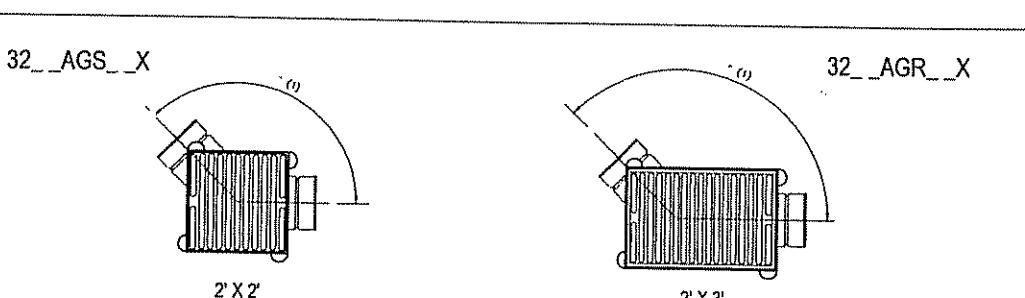
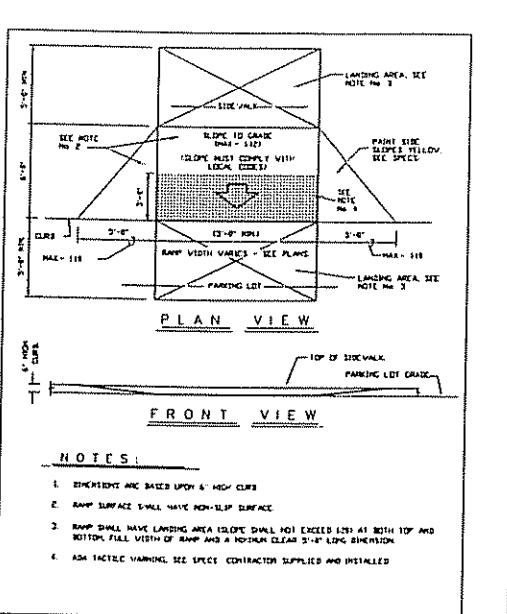
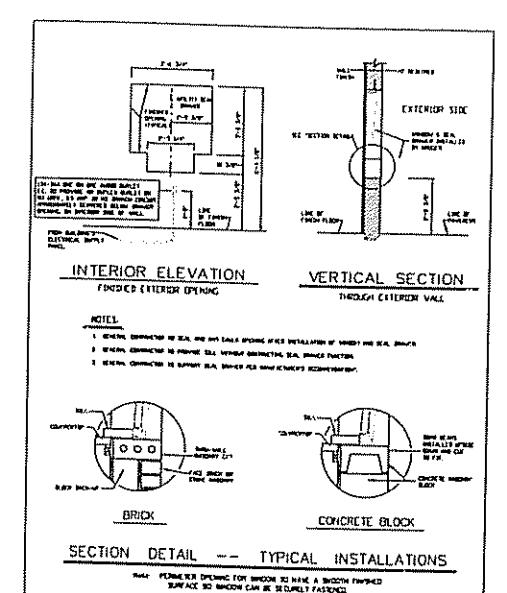
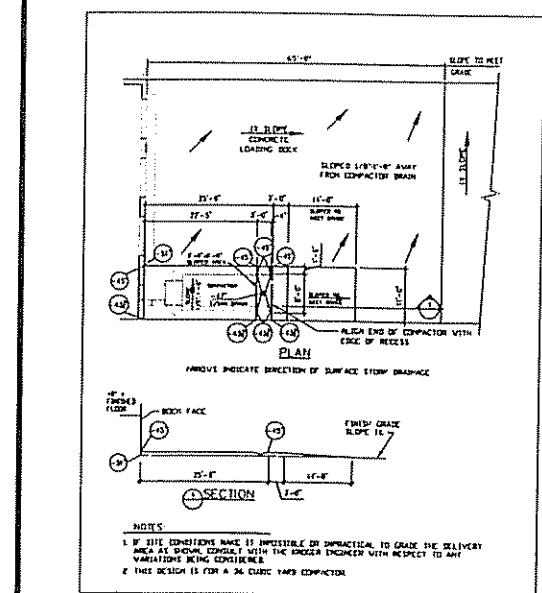
GMI Standard Details and  
Kroger Construction  
Details

**GAY AND NEEL, INC.**  
CIVIL ENGINEERING  
LAND PLANNING  
SURVEYING  
326 Mountain Avenue S.W.  
Roanoke, Virginia 24016  
(540) 345-1110 fax (540) 345-5567  
Email: info@gnpl.com

Kroger #R-402  
Gables Shopping Center  
Expansion  
Town of Blacksburg, VA



REvised:  
05/31/07



VARIOUS TYPES OF INLET AND  
OUTLET ADAPTERS AVAILABLE IN  
SIZES 4" THRU 24" FOR : ADS N-12,  
SDR-35 SEWER, SCHEDULE 40 DWV,  
CORRUGATED PVC AND REBED PVC

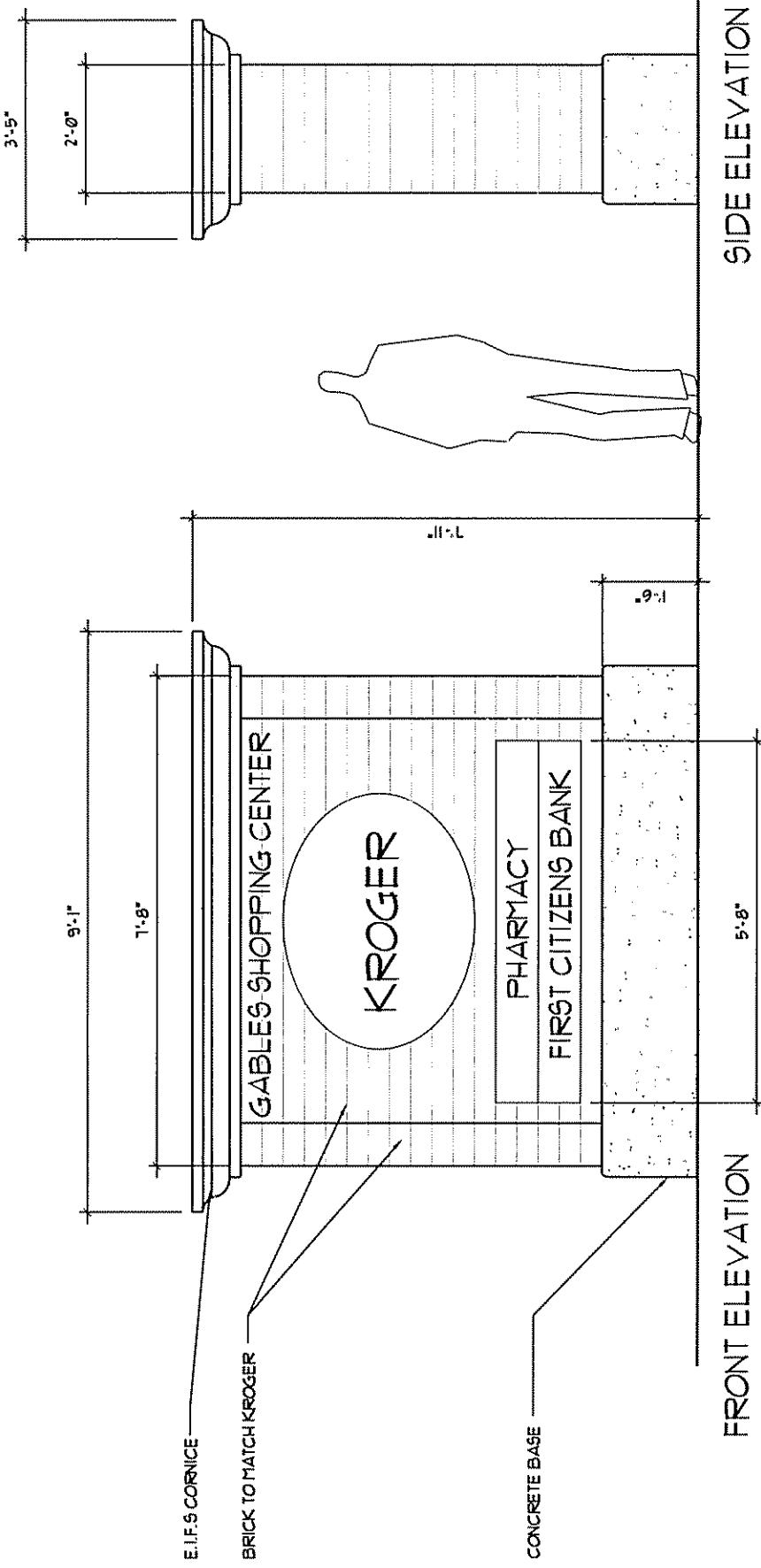
VARIOUS TYPES OF INLET AND  
OUTLET ADAPTERS AVAILABLE IN  
SIZES 4" THRU 24" FOR : ADS N-12,  
SDR-35 SEWER, SCHEDULE 40 DWV,  
CORRUGATED PVC AND REBED PVC

(1) ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO  
35° TO DETERMINE MINIMUM ANGLE BETWEEN  
ADAPTERS SEE DRAWING NO. 7001-110-012 &  
7001-110-013.  
(2) MAXIMUM RECOMMENDED OVERALL HEIGHT 10'

THIS PRINT DISCLOSES SUBJECT MATTER WHICH  
HYDRAULIC HAS PROPRIETARY RIGHTS. THE RECENT  
PRACTICE OF HYDRAULIC IS NOT TO CONFER  
TRANSFER, OR LICENSE THE USE OF THIS DESIGN OR  
TECHNICAL INFORMATION SHOWN HEREIN  
OR REPRODUCTION OF THIS PRINT OR ANY INFORMATION  
CONTAINED THEREIN OR MANUFACTURE OF ANY ARTICLE  
HEREFROM, FOR THE EXCLUSIVE USE OF OTHERS IS  
FORBIDDEN, EXCEPT BY STEEPLY WRITTEN PERMISSION  
FROM HYDRAULIC.

DRAWN BY/DATE	MATERIAL	312A VILLE BOULEVARD BIRMINGHAM, AL 36209 PH: (205) 322-2443 FAX: (205) 322-2199
APTD BY/CIA	PROJECT/NAME	Nylplast
DATE INDEXED	ROAD & HIGHWAY STRUCTURE	
DATE ISSUED	SCALE 1:25 DIRECT 1:1	
DWS SIZE A	REV B	

DESIGNED/CALC : PDL  
CHECKED:  
DRAWN: AMC  
SCALE: N/A  
DATE: 04/26/07  
JOB NO 1489 0  
SHEET 11 OF 11



TOTAL SQ. FT. (WITHOUT BASE) = 49.6 SQ. FT.

### SIDE ELEVATION

### FRONT ELEVATION

**Baskervill**

OWNER:	KROGER MID-ATLANTIC
PROJECT NAME:	KROGER 402, BLACKSBURG, VA
DESCRIPTION:	MONUMENT SIGN PROPOSAL
JOB NO.:	DWG. REF.:
SCALE: 3/8" = 1'-0"	

KROGER 402  
MONUMENT SIGN PROPOSAL

DATE: 06/20/01  
ISSUE NO: 1  
SHEET: 1

**ASI-01**